AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE 1 OF PAGES 1

2. AMENDMENT/MODIFICATION NO.	3. EFF. DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
M393	SEE BLOCK 16C	06-RL01830. /	06-RL01830.

6. ISSUED BY CODE

U.S. Department of Energy
Richland Operations Office
P.O. Box 550
MSIN K8-50
Richland WA 99352

7. ADMINISTERED BY *(If other than Item 6)* CODE

Ronnie L. Dawson
Contract Specialist

TEL: 509-372-4023 FAX: 509-372-4037

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*

Battelle Memorial Institute
Pacific Northwest Division
902 Battelle Blvd.
PO Box 999
Richland WA 99352

CODE FACILITY CODE

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (See Item 11)

X **10A. MODIFICATION OF CONTRACT/ORDER NO.** / DE-AC06-76RL01830

10B. DATED (See Item 13) 12/30/64

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (*Such as changes in paying office, appropriation date, etc.*) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103 (b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual Agreement of the Parties.
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not ☒ is required to sign this document and return 2 copies to issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (*Organized by UCF section headings, including solicitation/contract subject matter where feasible.*)

This modification is being issued to update Section J, Appendix C, Subcontracting Plan for Socioeconomic Programs, in accordance with the attached Appendix C. Revision 1 shall be effective October 1, 2003, for the entire Contract period. However, annual goals shall be negotiated and established by written agreement between the Contracting Officer and Battelle and shall be incorporated into this Plan by letter and will not require a Contract modification.

This modification results in no other changes.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
Karen L. Hoewing General Counsel		Ronnie L. Dawson Contracting Officer	
15B. CONTRACTOR/OFFEROR Karen L. Hoewing *(Signature of person authorized to sign)*	15C. DATE SIGNED 9/30/03	16B. UNITED STATES OF AMERICA BY Ronnie L. Dawson *(Signature of Contracting Officer)*	16C. DATE SIGNED 10/01/03

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PREVIOUS EDITION UNUSABLE

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA FAR (48 CFR) 53.243

Part I – The Schedule

Section B

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B – 1 Designation of Work and Facilities

The Government expressly engages the Contractor to manage and perform work and services, and to manage, operate and maintain the facilities of Department of Energy (DOE) both as described in this Contract and as designated in writing from time to time by DOE, including the utilization of information, material, funds, and other property of DOE, the collection of revenues, and the acquisition, sale or other disposal of property for DOE subject to the limitations as hereinafter set forth. The Contractor undertakes and promises to exert its best efforts to manage and perform said work and services and to manage, operate, and maintain said facilities, upon the terms and conditions herein provided and in accordance with such directions and instructions not inconsistent with this Contract which DOE may deem necessary to give to the Contractor from time to time. In the absence of applicable directions and instructions from DOE, the Contractor will use its best judgment, skill and care in all matters pertaining to the performance of this Contract.

(End of Clause)

B – 2 Obligated Funds

The total amount of funds presently obligated by the Government with respect to this Contract is $7,407,107,995.69 (through modification A390). Such amount may be increased or decreased in accordance with the Contract clause 970.5232-4 "Obligation of Funds".

(End of Clause)

B – 3 Estimated Budget Authority, Total Available Performance Fees, and Total Available Mission Stretch Goal(s) Incentive Fee

(a) In accordance with the Contract clause entitled "Determining Total Available Performance Fee and Fee Earned", the annual total available performance fees for this Contract shall be $7,300,000 for FY03 and $7,800,000 for FY04 through FY07 respectively. The total annual estimated Budget Authority is $511,200,000.

(b) In accordance with the Contract clause entitled "Determining Total Available Mission Stretch Goal(s) Incentive Fee and Fee Earned", the total available Mission Stretch Goal(s) Incentive fee for the term of this Contract shall be $3,000,000.

(End of Clause)

PART I – The Schedule

Section C

Description/Specifications/Work Statement

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C-1 Introduction

This Performance-Based Management Contract (PBMC) is for the management and operation of the Pacific Northwest National Laboratory (the Laboratory). Battelle Memorial Institute (the Contractor) shall, in accordance with the provisions of this Contract, accomplish the missions and programs assigned by the U.S. Department of Energy (DOE) and manage and operate the Laboratory. The Laboratory is one of the DOE's Office of Science (SC) multi-program laboratories. The Laboratory is a Federally Funded Research and Development Center (FFRDC) established in accordance with Federal Acquisition Regulation Part 35 and operated under this management and operating (M&O) contract, as defined in FAR 17.6 and DEAR 917.6.

This Contract reflects the Department's effort to enable the Contractor to achieve more highly effective and efficient management of the Laboratory, resulting in a safe and secure environment, outstanding science and technology results, more cost effective operations, and enhanced Contractor accountability. Toward this end, this Contract establishes a process for minimizing the use of unnecessary DOE orders by tailoring existing and new orders that will enable the Contractor to propose alternate standards, which rely primarily on state and federal laws and regulations, and management processes based on national standards, certified systems and best business practices. Contractor managers shall be held more accountable for maintaining risk mitigation as laboratory processes and assurance models change.

This Contract reflects the application of performance-based contracting approaches and techniques which emphasize results/outcomes and minimize "how to" performance descriptions. The Contractor has the responsibility for total performance under the Contract, including determining the specific methods for accomplishing the work effort, performing quality control, and assuming accountability for accomplishing the work under the Contract. Accordingly, this PBMC provides flexibility, within the terms and conditions of the Contract, to the Contractor in managing and operating the Laboratory.

Desired results of this Contract include improved Contractor operational efficiencies, allocations of Contractor oversight resources to direct mission work, and streamlined and more effective federal line management focused on a system-based approach to federal oversight with increased reliance on the results obtained from certified, nationally recognized experts and other independent reviewers. Moreover, science and technology have improved peer review metrics, stretch goals, and incentives to achieve extraordinary results.

Under this PBMC, it is the Contractor's responsibility to develop and implement innovative approaches and adopt practices that foster continuous improvement in accomplishing the mission of the Laboratory. DOE expects the Contractor to

produce effective and efficient management structures, systems, and operations that maintain high levels of quality and safety in accomplishing the work required under this Contract, and that to the extent practicable and appropriate, rely on national, commercial, and industrial standards and can be verified and certified by independent, nationally recognized experts and other independent reviewers. The Contractor shall conduct all work in a manner that optimizes productivity, minimizes waste, and fully complies with all applicable laws, regulations, and terms and conditions of the Contract.

To the maximum extent practical, this PBMC shall:

(a) Describe the requirements in terms of outcomes or results required rather than the methods of performance of the work;

(b) Use a limited number of systems-based measurable performance standards (*i.e.*, terms of quality, timeliness, quantity, etc.) to drive improved performance and increased effective and efficient management of the Laboratory;

(c) Provide for appropriate financial incentives (e.g., fee) when performance standards and contract requirements are achieved;

(d) Specify procedures for reduction of fee when services are not performed or do not meet Contract requirements; and

(e) Include non-financial performance incentives where appropriate.

C-2 The Laboratory Vision

Consistent with the Department's, Office of Science's and other applicable program office's strategic plans, the Contractor shall develop a compelling five (5) year vision for the Laboratory, along with a description (work plan) on how they will accomplish the vision. Upon approval by the Department, the vision statement, mission description, and program work activity to accomplish the vision shall be captured within the Institutional Plan as provided in the Institutional Planning Instructions issued by the DOE Office of Science and shall be updated yearly as part of the ongoing Institutional Planning process, as called for within the Clause entitled "Long-Range Planning, Program Development, And Budgetary Administration". The Performance Evaluation and Measurement Plan, as called for within the Clause entitled "Standards of Contractor Performance Evaluation", identifies performance outcomes and indicators, which are updated and agreed upon by the Parties annually, as standards against which the Contractor's overall performance of scientific, technical, operational, and/or managerial obligations under this Contract shall be assessed.

C-3 Performance Expectations, Objectives, and Measures

3.1 Core Expectations

3.1.1 General

The relationship between DOE and its national laboratory management and operating contractors is designed to bring best practices for research and development to bear on the Department's missions. Through application of these best practices, the Department seeks to assure both outstanding programmatic and operational performance of today's research programs and the long-term quality, relevance, and productivity of the laboratories against tomorrow's needs. Accordingly, DOE has substantial expectations of the Contractor in the areas of: program delivery and mission accomplishment; laboratory stewardship; and excellence in laboratory operations and financial management.

3.1.2 Program Development and Mission Accomplishment

The Contractor is expected to provide effective planning, management, and execution of assigned research and development programs. The Contractor is expected to execute assigned programs so as to strive for the greatest possible impact on achieving DOE's mission objectives, to aggressively manage the Laboratory's science and technology capabilities and intellectual property to meet these objectives, and to bring forward innovative concepts and research proposals that are well-aligned with DOE missions. The Contractor shall propose work that is aligned with, and likely to advance, DOE's mission objectives, and that is well matched to Laboratory capabilities. The Contractor shall strive to meet the highest standards of scientific quality and productivity, "on-time, on budget, as-promised" delivery of program deliverables, and first-rate service to the research community through user facility operation.

The Contractor is expected to demonstrate benefit to the nation from R&D investments by transferring technology to the private sector and supporting excellence in science and mathematics education to the extent such activities are consistent with achieving continuous progress towards DOE's core missions.

3.1.3 Laboratory Stewardship

The Contractor is expected to be an active partner with DOE in assuring that the Laboratory is renewed and enhanced to meet

future mission needs. Within the constraints of available resources and other Contract requirements, the Contractor, in partnership with DOE, shall:

(a) Maintain a Laboratory vision and long-term strategic plan that addresses the evolution of Laboratory capabilities to meet anticipated DOE and national needs.

(b) Attract, develop, and retain an outstanding work force, with the skills and capabilities to meet DOE's evolving mission needs.

(c) Renew and enhance research facilities and equipment so that the Laboratory remains at the state-of-the-art over time and is well-positioned to meet future DOE needs.

(d) Build and maintain a financially viable portfolio of research programs that generates the resources required to renew and enhance Laboratory research capabilities over time.

(e) Maintain a positive relationship with the broader research community, to enhance the intellectual vitality and research relevance of the Laboratory, and to bring the best possible capabilities to bear on DOE mission needs through partnerships.

(f) Build a positive, supportive relationship founded on openness and trust with the community and region in which the Laboratory is located.

3.1.4 Operational and Financial Management Excellence

The Contractor is expected to effectively and efficiently manage and operate the Laboratory through best-in class management practices designed to enable research while assuring the protection and proper maintenance of DOE research and information assets, the health and safety of Laboratory staff and the public, and the environment. The Contractor is expected to operate the Laboratory so as to meet all applicable laws, regulations, and requirements. The Contractor is expected to manage the Laboratory cost-effectively, striving to provide the greatest possible research output per dollar of research investment, and, accordingly, to develop and deploy management systems and practices that are designed to enhance research productivity and mission accomplishment consistent with meeting operational requirements.

3.2 Performance Evaluation Expectations

The performance expectations of this Contract are broadly set forth in this Section and reflect the DOE's minimum needs and expectations for Contractor performance. Specific performance work statements, performance standards (measures applied to results/outputs), acceptable performance levels (performance expectations), acceptable quality levels (permissible deviations from performance expectations), and related incentives shall be established annually, or at other such intervals determined by the DOE to be appropriate. The related incentives may be monetary, or where monetary incentives are not desirable or considered effective, the Contractor's performance may be used as a factor which directly affects the past performance report card, or a factor in a decision to reduce or increase DOE oversight or Contractor reporting, as appropriate.

In performance under this Contract, the Contractor shall be evaluated within the following general performance goals and expectations:

(a) Quality of Science and Technology: Produce original, creative scientific output that advances science and technology while achieving sustained scientific progress and impact that is recognized by the technical community.

(b) Relevance to DOE Missions and National Needs: Conduct quality scientific research that advances the missions of DOE and other national programs and contributes to U.S. leadership in international scientific and technical communities.

(c) Success in Constructing and Operating Research Facilities & Equipment: Provide quality strategic planning for facilities/equipment needed to insure the Laboratory can meet its S&T missions today and in the future, while effectively and efficiently maintaining current S&T facilities and equipment and providing effective, efficient operation of user facilities (EMSL/ARM).

(d) Effectiveness and Efficiency of Research Program Management: Provide for effective capability stewardship, expert delivery, and success in relationship and risk management.

Furthermore "Mission Stretch Goals," as specified within Section J, Appendix H, have been identified as incentives for the Contractor to exceed expectations within the science and technology arena. Incentives for the accomplishment of these mission stretch goals shall be awarded as

called for within the Contract clause entitled "Determining Total Available Mission Stretch Goal(s) Incentive Fee and Fee Earned," and "Appendix H."

3.3 Performance Objectives and Measures

The results-oriented performance objectives of this Contract are stated in the Performance Evaluation and Measurement Plan, and/or in the Work Authorization Directives issued annually in accordance with the special clause entitled "Long-Range Planning, Program Development And Budgetary Administration." The Contractor shall develop a 5-year Institutional Plan for the overall direction of the Laboratory and for the accomplishment of these objectives. The Plan shall be actively maintained and annually updated in accordance with Institutional Planning instructions issued by the Office of Science. The objectives shall be accomplished within an overall framework of management and operational performance requirements and standards contained elsewhere in this Contract. To the maximum extent practicable, these requirements and standards have also been structured to reflect performance-based contracting concepts, including the clause entitled "Application of DOE Contractor Requirements Documents," which permits the Contractor to propose to the Contracting Officer alternative and/or tailored approaches based on national, commercial or industrial standards and best business practices to meet the outcomes desired by the Government.

DOE's Quality Assurance/Surveillance Plan (QASP) for evaluating the Contractor's performance under the Contract shall consist primarily of the Performance Evaluation and Measurement Plan (PEMP) as called for within the Section I Contract clause entitled "Total Available Fee: Base Fee Amount and Performance Fee Amount." The QASP establishes the process DOE shall use to ensure that the Contractor has performed in accordance with the performance standards and expectations. The QASP shall summarize the performance standards, expectations and acceptable quality levels for each task; describe how performance will be monitored and measured; describe how the results will be evaluated; and state how the results will affect Contract payment.

The Contractor shall develop and implement a Laboratory assurance process, acceptable to the Contracting Officer, which provides reasonable assurance that the objectives of the Contractor's management systems are being accomplished and that the systems and controls will be effective and efficient. The Contractor's assurance process shall reflect an understanding of the risks, maintain mechanisms for eliminating or

mitigating the risks, and maintain a process to ensure that the management systems and their attendant assurance process(es) meet Contract requirements.

C-4 Statement of Work

4.1 General

The Contractor shall furnish the necessary personnel, facilities, equipment, materials, supplies, and services (except those provided by the Government) to accomplish the statement of work. The statement of work under this PBMC is comprehensive in that the Contractor is expected to perform all necessary technical, operational, and management functions to manage and operate the Laboratory and perform the DOE missions assigned to the Laboratory. This statement of work encompasses all on-going objectives of the Laboratory, as well as those objectives that may be assigned during the term of the Contract, and includes, but is not limited to: all infrastructure management and maintenance; human resources management; environmental management; health, safety, and security; and purchasing, financial, and other administrative systems.

4.2 Mission

The Laboratory's research and development missions and programs support the overarching national security mission of the DOE through efforts in fundamental science, energy and environmental sciences and technologies, and national security. The Laboratory shall continue to provide highly skilled staff who support multi-disciplinary efforts to rapidly translate scientific discoveries into applications in physical, computational, and environmental sciences, and on special facilities, including the Environmental Molecular Sciences Laboratory (EMSL). The Laboratory shall support the President's commitment to sustain and nurture the nation's science and technology enterprise, to support national goals in security, energy, environmental quality, human health and economic growth, and to provide a significant resource for scientists world-wide to engage with Laboratory staff in accelerating the nation's progress towards these goals.

The Laboratory's mission statement is documented annually and updated as necessary in the Institutional Plan. As a multi-program national laboratory, the Laboratory's mission is to create new knowledge and deliver solutions to science and technology challenges in DOE's core missions. The Laboratory envisions being DOE's best-in-class multi-program laboratory known for breakthrough science and for rapidly translating discoveries into applications that solve critical challenges and benefit our nation and society. Over the term of this Contract, the

Contractor shall conduct a broad spectrum of research and development programs in DOE's science, national security, environmental quality, and energy missions as assigned by DOE. The Contractor shall make its government-funded scientific and technical research results broadly available to the public. The Contractor shall continue to use its multidisciplinary capabilities and apply its expertise to conduct research for the government and the private sector. The Contractor shall also provide technical advice and guidance to DOE in support of policy development, program planning, and other DOE activities as requested by DOE, and shall bring forward recommendations for new research and development programs designed to achieve DOE mission goals.

In keeping with its overall role as a multi-program national laboratory, the specific research programs conducted and the overall mix of research at the Laboratory will change, as needed, over the Contract period in keeping with DOE's changing mission needs, advances in science and technology, and other drivers. Accordingly, this statement of work is not intended to be all-inclusive or restrictive, but is intended to provide a broad framework and general scope of the work to be performed at the Laboratory. This statement of work does not represent a commitment to, or imply funding for, specific projects or programs.

As a multi-program laboratory, work under this Contract includes scientific and technical programs sponsored by major DOE organizations. Primary DOE sponsors include:

- Office of Science
- Environmental Management
- Nuclear Energy Science and Technology
- Energy Efficiency and Renewable Energy
- Fossil Energy
- National Nuclear Security Administration
- Office of Intelligence
- Office of Counterintelligence

Additionally, the Contractor shall engage in other DOE and non-DOE science and technology initiatives that derive from the Laboratory's missions and utilize the Laboratory's core competencies. A summary of current Laboratory programs supporting DOE's mission areas follows. Descriptions of major programs are updated annually in the Laboratory's Institutional Plan.

4.2.1 Science mission role

In the science mission, the Contractor shall deliver the scientific knowledge and discoveries for DOE's applied missions; advance the frontiers of the physical sciences and areas of the biological, environmental and computational sciences; and provide world-class research facilities and essential scientific human capital to the nation's overall science enterprise. Areas of research shall include conducting research under DOE's Biological and Environmental Research programs, including biomolecular science and microbiology, environmental science (atmospheric science, climate research, and subsurface science), and computational modeling. The Contractor shall also conduct research programs in chemistry, chemical physics, materials science, nuclear science and technology, and computer and information science as part of DOE's Basic Energy Sciences and Advanced Scientific Computing Research programs.

Specifically the Contractor shall operate the William R. Wiley Environmental Molecular Sciences Laboratory (EMSL), a user facility that provides a broad range of advanced experimental and computational tools for advanced research in the environmental, biological, chemical, and materials sciences, and other user facilities as designated by or constructed by DOE.

4.2.2 National Security mission role

In the national security mission, the Contractor shall support DOE efforts to strengthen United States security through the application of nuclear science and by reducing the global threat from weapons of mass destruction. The Contractor shall also support DOE efforts in arms control and nonproliferation, intelligence analysis, and counterintelligence. In particular, the Contractor shall provide science, technology, and engineered systems to monitor nuclear treaties and agreements, to prevent the proliferation of weapons of mass destruction, and to counter terrorism, including threats from chemical and biological agents. The Contractor shall provide technical expertise for the United States' international efforts to improve the safety of nuclear power generation and the management and safeguarding of nuclear materials. Other areas of emphasis shall include cyber security, homeland security, and infrastructure protection. The Contractor shall also provide selected support for DOE's stockpile stewardship.

4.2.3 Energy Resources mission role

In the energy resources mission, the Contractor shall increase global energy security, maintain energy affordability and reduce adverse environmental impacts associated with energy production, distribution, and use by developing and promoting advanced energy technologies, policies and practices that efficiently increase domestic energy supply, diversity, productivity, and reliability. The Contractor shall be a major asset to DOE and the nation in providing a balanced portfolio of secure, clean, and affordable energy systems compatible with achieving a sustainable energy future. The Contractor shall provide science and engineering for developing clean, affordable technologies for transportation, energy generation, and energy efficient buildings and industrial processing. Particular areas of emphasis include development of low-cost, high performance, solid oxide fuel cells, hybrid fuel cell systems, energy storage systems, bio-based products, and essential technology for a hydrogen economy. Tools shall also be developed for transforming the energy grid into a secure and dynamically predictable transmission and distribution system. Other areas of emphasis include leadership in climate modeling, integrated assessment, and CO_2 capture and sequestration science and technology, establishing a sound basis for the geologic and terrestrial sequestration that enables the nation to effectively manage the risks posed by climate change. The Contractor shall also provide unique capabilities in advanced materials, processes and diagnostics critical to the development of next-generation nuclear reactors and securing a safe and viable nuclear energy option.

4.2.4 Environmental Quality mission role

In the environmental quality mission, the Contractor shall provide science and technology support to DOE's effort to aggressively clean up the environmental legacy of nuclear weapons and civilian nuclear research and development programs, permanently dispose of the Nation's radioactive wastes, minimize the social and economic impacts to individual workers and their communities resulting from departmental activities, and ensure the health and safety of DOE workers, the public and protection of the environment. The Contractor shall provide science and technology contributions that substantially reduce the cost, time, and risk associated with DOE's cleanup, and enable site cleanup and closure decisions to have a sound, scientific basis. The Contractor shall support DOE's waste characterization, waste disposal, cleanup, and land restoration programs, both nationally and at the Hanford Site. The Contractor shall utilize advanced computational capabilities that enable the design of bio-chemical remediation processes that target specific distributed contaminants, optimize the facilities that will be used to treat large quantities of concentrated contaminants, and provide sub-surface

contaminant behavior models that satisfy stakeholder needs for decision and informational tools. Areas of emphasis include solving tank waste problems at DOE sites, vitrification and processing technologies for waste treatment and immobilization, fate and transport modeling, environmental measurements and monitoring, ecological studies, and technology for groundwater cleanup. The tools and technologies developed by the Contractor for cleanup shall be expanded to help address the region's and Nation's most challenging natural resource issues - water stewardship, carbon management, and ecosystem protection.

4.2.5 Technology Transfer Programs

The Contractor shall contribute to U.S. technological competitiveness through research and development partnerships with industry that capitalize on the Laboratory's expertise and facilities. Principal mechanisms to effect such contributions are: cooperative research and development, access to user facilities, reimbursable work for non-DOE activities, personnel exchanges, and licenses.

The Contractor shall cooperate with industrial organizations to assist in increasing U.S. industrial competitiveness, by assisting in the application of energy science and technology. Such cooperation may include an early transfer of information to industry by arranging for the active participation by industrial representatives in the Laboratory's programs. Cooperation with industrial partners may include long-term strategic partnerships aimed at commercialization of inventions or the improvement of industrial products. The Contractor shall respond to specific near-term technological needs of industrial companies with special consideration given to working with small, small disadvantaged and women-owned businesses as well as regional and local companies through special assistance programs targeting such organizations. The Contractor shall develop productive relationships/partnerships with regional and local companies, Governments and universities through forums such as conferences, workshops, and traveling presentations. It is anticipated that these organizations will be particularly effective participants in the Laboratory's technology transfer activities in promoting a mutually beneficial relationship between DOE, the Contractor and the communities surrounding the Laboratory.

Cooperation may also include use by industrial organizations of Laboratory facilities and other assistance as may be authorized, in writing, by the Contracting Officer.

4.2.6 Science and Mathematics Education Programs and Cooperation with Universities and Other Research Institutions

The Contractor shall develop partnerships with colleges and universities, including Minority-Serving Institutions, and manage programs to enhance science and mathematics and technology education at all levels. The Contractor shall encourage participation by a diverse group of faculty and students in Laboratory programs bringing their talents to bear on important research problems and contributing to the education of future scientists and engineers. The Contractor shall conduct programs for pre-college students and faculty to enrich science and mathematics and technology education including programs to encourage members of under-represented societal groups to enter careers in the science and engineering fields.

The Contractor shall manage and operate programs for cooperation with academic and nonprofit research institutions to integrate research and education in scientific and technical fields underlying DOE's programs, as well as facilitate partnerships between the Laboratory and other research and educational institutions. This cooperation may include, but is not limited to, such activities as: (i) joint experimental programs with colleges, universities, and nonprofit research institutions; (ii) exchange of college and university faculty and Laboratory staff; (iii) student/teacher educational research programs at the pre-collegiate and collegiate level; (iv) post-doctoral programs; (v) arrangement of and participation in regional, national, or international professional meetings or symposia; (vi) use of special Laboratory facilities by colleges, universities, and nonprofit research institutes; or (vii) provision of unique experimental materials to colleges, universities, or nonprofit research institutions or to qualified members of their staffs.

4.2.7 International Research Collaboration

In accordance with established DOE policies, the Contractor will maintain a broad program of international research collaboration in areas of research of interest to the DOE. This collaboration will be both in areas where DOE has formal international cooperation agreements which assign the Contractor a specific role, as well as in areas of general interest to DOE's research programs.

This collaboration may include, but is not limited to, such activities as: (i) participation in assigned aspects of formal international agreements; (ii) maintenance of liaison with peer groups in the international R&D community; (iii) participation in programs of international scientific organizations; (iv) developing and proposing to DOE, joint experimental programs and/or work for others from international sponsors; or (v)

participation in programs involving visits, assignments, or exchanges of staff/students.

4.2.8 Other Related Work and Operation of the Laboratory

The Contractor shall plan, manage and execute other research and development programs as directed or approved by DOE. In addition, the Contractor shall support local and regional economic development and apply existing Laboratory assets in the execution of such support.

The Contractor shall also manage, operate, protect, maintain and enhance the Laboratory's ability to function as a DOE multi-program national laboratory, provide the infrastructure and support activities, support the accomplishment of the Laboratory's missions and provide the accountability to the DOE under the results-oriented, performance-based provisions of this Contract.

4.3 Operating Envelope

4.3.1 Operating Principles

This section summarizes the overall operating envelope for the Laboratory. Specific provisions of this Contract regarding management and operational requirements have been established so as to be consistent with this intended operating envelope, and assignment of programs with operating requirements outside the range established here may require review and modification of relevant Contract terms.

The operating envelope generally consists of environmental, safety, health and quality (ESH&Q), facility management, and safeguards and security requirements that bound the operation of facilities and activities (work). These requirements are captured by the Laboratory's Standards Based Management Systems and deployed to facilities, staff and "the bench top" through a series of electronic tools (e.g. IOPS, EPR, FUAs). The requirements flow shall be managed through a disciplined interface between DOE and the Contractor. Requirements shall be graded and tailored to the risks inherent in the conduct of work, and work shall be authorized using the guiding principles and core values of integrated safety management. Requirements at the contractual level shall be set forth in accordance with the clause in Section H, entitled "Application of DOE Contractor Requirements Documents."

The Requirements Integration Tailoring (RIT) process as described in the Standards Based Management System may be used as the approved

process to identify appropriate standards. When such a process is used, it shall be based on the following criteria:

(a) For Laboratory standards, the DOE site management and Contractor management participate in and agree on the process, including extent of stakeholder involvement and confirmation of standards.

(b) Standards are based on the work, the environment in which the work is performed, and the hazards or risks (operational and administrative) associated with the work.

(c) Laboratory processes include robust mechanisms for establishing and maintaining standards that govern the conduct of work.

(d) People qualified by knowledge, experience, and training select or develop and confirm the standards.

(e) The process is documented and the adequacy of the standards selected is justified; justification is not required for standards not selected.

(f) The selected standards are accepted by all as the basis for the performance of work and oversight.

(g) To the extent possible, standards are outcome-based (i.e., establish the "what" versus the "how").

(h) Preference is given to external laws and regulations, consensus standards or generally accepted standards. If consensus or generally accepted standards are not sufficient, site-specific standards based on DOE Directives are developed.

(i) Process efficiencies are sought through multi-site benchmarking and collaboration in the selection of standards for similar work.

To accommodate the broad range of work at the Laboratory, and to assure proper control of classified and high hazard work without imposing unnecessarily burdensome requirements on low risk activities or facilities, the Contractor shall apply a graded approach to establishing work requirements and overseeing project work.

4.3.2 Facilities

The Laboratory's facilities include those located in Richland, Washington, the Hanford Reservation, and may include those located in Sequim,

Washington, Seattle, Washington, Portland, Oregon, Washington D.C., and other sites as may be designated by the Contractor upon approval of the DOE Contracting Officer.

Over the course of this Contract, the Contractor shall conduct work involving nuclear and radiological materials in non-nuclear facilities and manage at least one Category II nuclear facility.

This Contract will enable the establishment of the Laboratory "Nuclear Island" concept. The nuclear island(s) shall be operated consistent with the requirements set forth within a DOE-approved Authorization Agreement. The nuclear island(s) include those work activities at the Laboratory that are conducted within Hazard Category 1, 2, or 3 DOE nuclear facilities, as designated in accordance with DOE-STD-1027-92, "Hazard Categorization and Accident Analysis Techniques for compliance with DOE Order 5480.23, Nuclear Safety Analysis," and 10 CFR 830. Currently, the "Nuclear Island" at the Laboratory consists of the work and facilities associated with the Radiochemical Processing Laboratory (RPL). More simply, the current nuclear island can be defined as the RPL and immediately adjacent ancillary areas, as defined in both the Documented Safety Analysis (DSA) and Facility Use Agreement (FUA).

The Contractor shall initiate and continually improve facility and waste management practices that implement the "Start Clean - Stay Clean" principles whereby research projects and facility operations are planned so that wastes will be minimized at the end of the project or the life of the facility.

4.3.3 Hazards

The Contractor shall conduct biological research, including animal studies. Research conducted shall not utilize agents that exceed biohazard level III without DOE approval.

The Contractor shall conduct research utilizing a broad range of nuclear, radiological, and chemical quantities and shall maintain individual facility chemical inventories below Threshold Planning Quantities. The Contractor shall conduct research involving non-ionizing radiation hazards including but not limited to infrared sources, lasers, magnetic fields, radio frequency fields, microwave fields, electric fields and ultraviolet light sources. Over the course of this Contract the Contractor shall conduct work involving physical hazards including but not limited to electrical, pressure systems, work at heights (e.g. roofs and ladders), noise greater than 85dBA, thermal hazards, and other energy hazards. The Contractor shall also conduct research involving equipment or hazards including but not limited to the following: aircraft, boats, firearms, underwater diving,

confined space, facility construction and modification, forklifts, cranes, hoists, and off-road motor vehicle use.

4.3.4 Security

Over the term of this Contract, the Contractor shall conduct work with a broad range of information security protections, including cyber security and export controls, ranging from open research intended for broad public dissemination, to classified research. In particular, the Contractor shall conduct a significant volume of classified work in support of DOE's national security mission. The Contractor shall therefore maintain appropriately controlled space, including Special Compartmentalized Information Facility (SCIF) space.

Over the course of this Contract, Contractor staff may participate in international programs likely involving short-term and long-term staff deployments to foreign countries, including sensitive countries.

4.3.5 External Regulation

Over the term of this Contract, DOE may evaluate the potential of moving all or parts of the Laboratory to external regulation (OSHA, NRC.). The Contractor shall support DOE in evaluating the benefits and costs of external regulation, and in execution of a pilot program or transition if a decision to proceed is made.

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Part I – The Schedule

Section E

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E – 1 52.246-9 Inspection of Research and Development (Short Form) (Apr 1984)

The Government has the right to inspect and evaluate the work performed or being performed under the Contract, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If the Government performs inspection or evaluation on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

(End of Clause)

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F – 1 Period of Performance

This Contract shall be effective as specified in Block No. 3 – Effective Date, of the Standard Form 30, for this modification, except as otherwise provided, and shall continue up to and including September 30, 2007, unless sooner terminated according to its terms and conditions, or extended in accordance with the appropriate FAR and DEAR provisions.

(End of Clause)

F – 2 52.242-15 Stop-Work Order (Aug. 1989) Alternate I (Apr 1984)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this Contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the Parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the Parties shall have agreed, the Contracting Officer shall either:

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Termination clause of this Contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the Contract that may be affected, and the Contract shall be modified, in writing, accordingly, if:

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this Contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this Contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(End of Clause)

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G-1 Head of Contracting Activity (HCA), Contracting Officer (CO), and Contracting Officer's Representative (COR)

(a) The Manager, DOE Richland Operations Office, has been designated as the HCA for this Contract.

(b) The primary CO for this Contract shall be Ronnie L. Dawson. When necessary, other DOE COs may act within the authority delegated to them to facilitate administration of this Contract.

(c) The COR(s) for this Contract have been designated, in writing, by the CO in accordance with paragraph (b) of the clause entitled "Technical Direction" and are listed below:

Name & Position	Authorities
Paul W. Kruger, Associate Manager for Science and Technology	Unlimited authority to act for the Contracting Officer for functions that do not involve a change in the scope, price, terms, or conditions of the Contract.
Julie K. Erickson, Deputy Associate Manager for Science and Technology	Unlimited authority to act for the Contracting Officer for functions that do not involve a change in the scope, price, terms, or conditions of the Contract.
Lynnette R. Downing, Work for Others Coordinator	Unlimited authority to act for the Contracting Officer for Work for Others functions that do not involve a change in the scope, price, terms, or conditions of the Contract.
Betty L. Hollowell, Chief Counsel	Unlimited authority to act for the Contracting Officer for Litigation Management and Legal Policy functions that do not involve a change in the scope, price, terms, or conditions of the Contract.

(End of Clause)

G–2 952.242-70 Technical Direction (DEC 2000)

(a) Performance of this work under this Contract shall be subject to the technical direction of the Contracting Officer's Representative (COR). The term "technical direction" is defined to include, without limitation:

(1) Providing direction to the Contractor that redirects Contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details, or otherwise serve to accomplish the contractual Statement of Work.

(2) Providing written information to the Contractor that assists in interpreting drawings, specifications, or technical portions of the work description.

(3) Reviewing and, where required by the Contract, approving, technical reports, drawings, specifications, and technical information to be delivered by the Contractor to the Government.

(b) The Contractor will receive a copy of the written COR designation from the Contracting Officer. It will specify the extent of the COR's authority to act on behalf of the Contracting

Officer.

(c) Technical direction must be within the scope of the work stated in the Contract. The COR does not have the authority to, and may not, issue any technical direction that:

(1) Constitutes an assignment of additional work outside the Statement of Work;

(2) Constitutes a change as defined in the Contract clause entitled “Changes;”

(3) In any manner causes an increase or decrease in the total estimated Contract cost, the fee (if any), or the time required for Contract performance;

(4) Changes any of the expressed terms, conditions or specifications of the Contract; or

(5) Interferes with the Contractor’s right to perform the terms and conditions of the Contract.

(d) All technical directions shall be issued in writing by the COR.

(e) The Contractor must proceed promptly with the performance of technical direction duly issued by the COR in the manner prescribed by this clause and within its authority under the provisions of this clause. If, in the opinion of the Contractor, any instruction or direction by the COR falls within one of the categories defined in (c)(1) through (c)(5) of this clause, the Contractor must not proceed and must notify the Contracting Officer in writing within five (5) working days after receipt of any such instruction or direction and must request the Contracting Officer to modify the Contract accordingly. Upon receiving the notification from the Contractor, the Contracting Officer must:

(1) Advise the Contractor in writing within thirty (30) days after receipt of the Contractor’s letter that the technical direction is within the scope of the Contract effort and does not constitute a change under the Changes clause of the Contract;

(2) Advise the Contractor in writing within a reasonable time that the Government will issue a written change order; or

(3) Advise the Contractor in writing within a reasonable time not to proceed with the instruction or direction of the COR.

(f) A failure of the Contractor and Contracting Officer either to agree that the technical direction is within the scope of the Contract or to agree upon the Contract action to be taken with respect to the technical direction will be subject to the provisions of the clause entitled “Disputes.”

(End of Clause)

G–3 Correspondence Procedure

Acting as a representative of the DOE Richland Operations Office, the Associate Manager for Science and Technology (AMT) has the overall lead responsibility for oversight and administration of the programs and activities conducted by the Laboratory. To promote timely and effective administration, correspondence, submitted under the Contract, shall contain a subject line commencing with the Contract number and shall be subject to the following procedures:

(a) Technical Correspondence

Technical correspondence shall be addressed to the DOE Program Manager, COR, or other duly authorized Government representative, with an information copy of the correspondence to the AMT. For the purpose of this paragraph, technical correspondence does not include technical correspondence where patent issues are involved; correspondence which proposes or otherwise involves waivers, deviations, or modifications to the requirements, terms, or conditions, of this Contract; and correspondence associated with approval requirements of the Contracting Officer.

(b) Other Correspondence

Other than technical correspondence shall be addressed to the Contracting Officer with information copies of the correspondence to the AMT and as appropriate to the DOE Program Manager, COR, or other authorized Government representatives.

(End of Clause)

G–4 Modification Authority

Notwithstanding any of the other provisions of this Contract, a Contracting Officer shall be the only individual on behalf of the Government authorized to:

(a) Accept nonconforming work;

(b) Waive any requirement of this Contract; or

(c) Take any action involving a change in the scope, price, terms, or conditions of this Contract.

(End of Clause)

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H-1 Use Of Facilities for Contractor's Own Account

During the term of this Contract, the Contractor may use the facilities designated under Section B and other Government-owned or leased property in its custody under this Contract to conduct research and development activities for its own account, to the extent and in accordance with such terms and conditions as DOE and the Contractor may agree to from time to time as set forth in Use Permit Agreement No. DE-GM06-00RL01831 dated February 01, 2000. Except as incorporated by reference in the aforementioned Agreement, the terms and conditions of this Contract shall not apply to such research and development activities.

(End of Clause)

H-2 Implementation Procedures for Public Affairs

(a) Public Affairs and News Releases

(1) The Parties recognize the importance of coordination with regard to areas covered in this clause so as to achieve public policy objectives important to the nation. As a federal agency, DOE must assure that news releases which describe its policies and procedures as related to the operation of its national scientific laboratories do so on an accurate and timely basis. Accordingly, the Parties recognize the importance of advanced coordination of significant news media activities, including news releases, major announcements, and significant interactions with national news media. The Parties agree that the procedures and policies established in this clause shall constitute the procedures required by the clause in this Contract entitled Public Affairs.

(2) Coordination is especially important in certain circumstances and the Contractor shall be guided by the following principles. The Contractor will:

i. Coordinate and communicate with DOE-RL Office of Communications on interactions with Congress.

ii. Ensure that State, local, territorial, and Indian Governments are provided an opportunity to participate in development of national energy and energy-related policies and programs, and particularly in those policies and programs which directly affect them.

iii. Seek public participation in coordination with DOE-RL Office of Communications to the extent allowable in pending policy and planning issues which are substantial and which can have major impacts on the public.

(3) The Contractor will exercise diligent efforts to inform DOE in advance of significant public affairs events or other major activities, including presentations, publications, significant audio-visual materials, and special exhibits. When such advance exchange is not possible operationally, the Contractor shall promptly furnish the released information to the DOE concurrent with its release. When preparing public information about the Contractor's performance or activities, DOE will exercise the same diligence in attempting to coordinate with the Contractor prior to its release.

(4) The Contractor shall not release information attributed directly to DOE or which purports to represent established DOE policy without advance concurrence of the DOE-RL Office of Communications. Nothing in this clause shall be construed so as to limit the right of the Contractor to publicize the results of its scientific research, consistent with the advance coordination principles outlined above.

(5) In all public releases of information in communication products related to the Laboratory, identification of the facility as a Department of Energy facility shall be made prominently in the communication product involved. This identification should include a statement that the Laboratory is a DOE facility which is operated by the Contractor under a performance based management contract. The inclusion of such a standard statement does not replace, however, the requirement for prominent identification of the Laboratory as a DOE facility in an appropriate editorial context in the communications product.

(6) Nothing in this clause is intended to interfere with requirements associated with information that is classified or controlled under a statute or Executive Order.

(b) Public Involvement

(1) The Contractor agrees to provide public involvement where appropriate and in cooperation with DOE-RL Office of Communications.

(2) DOE recognizes such activities as an integral component of Contractor management responsibilities in the execution of the Contract. The Parties recognize their mutual responsibilities to coordinate public involvement activities and to coordinate all related external communications consistent with the principles outlined in paragraph (a), Public Affairs and News Releases, above.

(3) In carrying out Laboratory public involvement activities, the Contractor agrees that it will make no statements contrary to DOE policy or enter into any commitments with external parties regarding departmental actions without DOE concurrence.

(End of Clause)

H-3 Transportation

The Contractor shall use carriers providing services commensurate with DOE program needs, taking full advantage of special reduced rates where available.

(End of Clause)

H-4 Source and Special Nuclear Materials

The Contractor shall comply with all applicable regulations and instructions of DOE relative to the control of and accounting for source and special nuclear material (as these terms are defined in applicable regulations). The Contractor shall make such reports and permit such inspections as DOE may require with reference to source and special nuclear materials. The Contractor shall take all reasonable steps and precautions to protect such materials against theft and misappropriations and to minimize all losses of such materials. The Contractor shall also submit to DOE, as requested for all specified nuclear materials, the annual Nuclear Materials Inventory Assessment and the Nuclear Materials Forecast.

(End of Clause)

H-5 Workers' Compensation

(a) Pursuant to State of Washington Revised Code (RCW) Title 51, the Department of Energy (DOE), Richland Operations Office (RL) is a group self-insurer for purposes of workers' compensation coverage. The coverage afforded by those workers' compensation statutes shall, for work under this Contract in the state of Washington, be subject to the following:

(1) Under the terms of a Memorandum of Understanding (MOU) with the Washington Department of Labor and Industries (L&I), DOE has agreed to perform all functions required by self-insurers in the State of Washington. While this MOU is in effect, the Contractor is not required to pay for workers compensation coverage or benefits except as otherwise provided below or as directed by the Contracting Officer.

(2) The Contractor shall submit to DOE (or other party as designated by DOE for transmittal to the L & I), such payroll records required by the workers compensation laws of the State of Washington.

(3) The Contractor shall submit to DOE (or other party as designated by DOE), for transmittal to the Department, the accident reports provided for by RCW Title 51, Section 51.28.010, or any other documentation requested by DOE or the L&I pursuant to the workers compensation laws of the State of Washington.

(4) The Contractor shall take such action, and only such action, as DOE requests in connection with any accident reports, including assistance in the investigation and disposition of any claim thereunder and, subject to the direction and control of DOE, the conduct of litigation in the Contractor's own name in connection therewith.

(5) Under RCW Title 51.32.073, DOE is the self-insurer and is responsible for making quarterly payments to the State Department of L&I. In support of this arrangement, the Contractor is responsible for withholding appropriate employee contributions and forwarding on a timely basis these contributions plus the employer-matching amount to DOE.

(6) The workers' compensation program shall operate in partnership with Contractor employee benefits, risk management, and environmental, safety, and health management programs. The Contractor shall cooperate with DOE for the management and administration of DOE, Richland Operations Office (RL) self-insurance program that provides workers' compensation benefit coverage to Contractor employees at PNNL.

(7) The Contractor must certify to the accuracy of the payroll record used by the Department in establishing the self-insurance claims reserves, and cooperate with any state audit.

(8) The Contractor shall submit to the Contracting Officer, a yearly evaluation and analysis of workers' compensation cost as a percent of payroll compared with the percentage of payroll cost reported by a nationally recognized Cost of Risk Survey that has been pre-approved by the Department (once DOE has provided the Contractor with the necessary data to perform the analysis required in this paragraph).

(b) The Contractor will provide statutory worker's compensation coverage for staff members performing work under this Contract outside of the State of Washington and not otherwise covered by the State of Washington worker's compensation laws.

(c) Subcontractors performing work under this Contract on behalf of the Contractor are not covered by the provision of the Agreement referenced in (a)(1) of this clause. The Contractor shall flow-down to its subcontractors the requirement to provide statutory worker's compensation coverage for the subcontractor's employees. The Contractor

shall have no responsibility for subcontractor worker's compensation when it includes this requirement in the subcontract.

(End of Clause)

H-6 Unemployment Compensation

(a) The Contractor will provide coverage for staff members under state unemployment compensation laws in any state in which any part of the work is carried on.

(b) DOE shall be given the benefit of any employer experience rating credit received by the Contractor and attributable to wages subject to contribution paid under this Contract.

(End of Clause)

H-7 Contractor Acceptance of Notices of Violation or Alleged Violations, Fines, and Penalties

(a) The Contractor shall accept, in its own name, service of notices of violation or alleged violations (NOVs/NOAVs) issued by Federal or State regulators to the Contractor resulting from the Contractor's performance of work under this Contract, without regard to liability. The allowability of the costs associated with fines and penalties shall be subject to the other provisions of this Contract.

(b) The Contractor shall notify DOE promptly when it receives service from the regulators of NOVs/NOAVs and fines and penalties.

(End of Clause)

H-8 Allocation of Responsibilities for Contractor Environmental Compliance Activities

(a) The Parties commit to full cooperation with regard to acquiring any necessary permits or licenses required by environmental, safety and health (ES&H) laws, codes, ordinances, and regulations of the United States, states or territories, municipalities or other political subdivisions, and which are applicable to the performance of work under this Contract. It is recognized that certain ES&H permits will be obtained jointly as co-permittees, and other permits will be obtained by either party as the sole permittee. The Contractor, unless otherwise directed by the Contracting Officer, shall procure all necessary non-ES&H permits or licenses.

(b) This clause allocates the responsibilities of DOE and the Contractor, referred to collectively as the "Parties", for implementing the environmental requirements at facilities within the scope of the Contract. In this Clause, the term "environmental requirements" means requirements imposed by applicable Federal, State, and local environmental laws and regulations, including, without limitation, statutes,

ordinances, regulations, court orders, consent decrees, administrative orders, or compliance agreements, including the *Hanford Federal Facility Agreement and Consent Order*, consent orders, permits, and licenses.

(c) (i) Liability and responsibility for civil fines or penalties arising from or related to violations of environmental requirements shall be borne by the party causing the violation irrespective of the fact that the cognizant regulatory authority may assess any such fine or penalty upon either party or both Parties without regard to the allocation of responsibility or liability under this Contract. This contractual allocation of liability for any such fine or penalty is effective regardless of which party signs permit applications, manifests, reports, or other required documents, is a permittee, or is the named subject of an enforcement action or assessment of a fine or penalty. The allowability of the costs associated with fines and penalties assessed against the Contractor shall be subject to the other provisions of this Contract.

(ii) In the event that the Contractor is deemed to be the primary party causing the violation, and the costs of fines and penalties proposed by the regulatory agency to be assessed against the Government (or the Government and Contractor jointly) are determined by the Government to be presumptively unallowable if allocated against the Contractor, then the Contractor shall be afforded the opportunity to participate in negotiations to settle or mitigate the penalties with the regulatory authority. If the Contractor is the sole party of the enforcement action, the Contractor shall take the lead role in the negotiations and the Government shall participate and have final authority to approve or reject any settlement involving costs charged to the Contract.

(d) DOE agrees that if bonds, insurance, or administrative fees are required as a condition for permits obtained by the Contractor under this Contract, and the Contractor has been directed in by the Contracting Officer to obtain such permits after the Contractor has notified the Contracting Officer of the costs of complying with such conditions, such costs shall be allowable. In the event such costs are determined by DOE to be excessive or unreasonable, DOE shall provide the regulatory agency with the acceptable form of financial responsibility. Under no circumstances shall the Contractor be required to provide any corporate resources or corporate guarantees to satisfy such regulatory requirements.

(End of Clause)

H-9 Other Intellectual Property Related Matters

(a) Transfer of Patent Rights to a Successor Contractor

As consideration for the Contractor's commitment to expend private monies in its privately-funded technology transfer effort under this Contract at a level at least commensurate with such expenditures under its prior contracts, including at least one million two hundred fifty thousand dollars ($1,250,000) per year for activities under

the privately-funded technology transfer program which includes a combination of the filing of an average of 20 patent applications, and no fewer than 15, per year during the period of this Contract, including expenses related to the patenting, marketing, licensing and development of Subject Inventions, the Parties agree that at the termination or expiration of this Contract, the following terms and conditions shall apply to Subject Inventions which were elected to be pursued under the Contractor's privately-funded technology transfer program, and to the licenses and royalties generated therefrom:

(1) In the event Contractor has executed a license, assignment or other commercialization agreement to a Subject Invention prior to termination or expiration of this Contract in which royalties, fees, equity or other consideration is to be or has been paid (hereinafter "agreement"), the distribution of net income from royalties, equity, or any other consideration received or to be received under such agreement shall remain as prior to Contract termination or expiration and shall continue for the duration of such agreement. As set forth in paragraph (d) below, fifty-one percent (51%) of such net income shall go to the Successor Contractor at the Facility for use at the Facility pursuant to its contract or, in the absence of a Successor Contractor, to such other entity designated by the Government, and forty-nine percent (49%) may be retained by the Contractor for use in accordance with 35 USC Section 200 et seq. Administration of agreements related to such Subject Invention, shall remain with the Contractor. Title to such Subject Invention shall remain with the Contractor provided the Contractor has fulfilled the commitments set forth in paragraph (a) above. If the Contractor has not fulfilled the commitments set forth in paragraph (a) above, upon request, title to such Subject Invention shall be transferred to the Successor Contractor, or such other entity designated by the Government.

(2) In the event Contractor has not executed an agreement (as defined in paragraph (1) above) to a Subject Invention, upon request, title to such Subject Invention shall be transferred to the Successor Contractor, or to such other entity designated by the Government, unless Contractor can demonstrate that it has expended at least twenty thousand dollars ($20,000) of private monies in its privately funded technology transfer program toward the patenting, licensing, marketing and/or development of such Subject Invention, and the Contractor has fulfilled the commitments set forth in paragraph (a) above. In the event Contractor retains title to a Subject Invention under this paragraph, the distribution of royalties, fees, equity or other consideration from such agreement shall be as set forth in paragraph (1) above.

(3) In the event Contractor retains title to Subject Inventions under paragraphs (1) or (2) above, and executes an agreement (as defined in paragraph (1) above) to such Subject Inventions after the termination or expiration of this Contract,

the distribution of royalties, fees, equity or other consideration from such agreement shall be as set forth in paragraph (1) above.

(4) The Contractor and the Government shall enter negotiations prior to such termination or expiration with respect to retention of the title to Subject Inventions. Such negotiations shall consider the equities of the Parties with respect to each Subject Invention and shall take into consideration the presence of private investment, DOE's need for continued operation of the Facility, potential commercial use, assumption of patent related liabilities, effective technology transfer, and the need to market the technology. Such negotiations shall not change the disposition of title provided for in paragraphs (1) and (2) above unless mutually agreed by the Contractor and the Government.

(5) For any Subject Invention to which the Contractor maintains title or administration of an agreement under paragraphs (a)(1)-(2) above, the Contractor agrees that, to the extent it is able to do so in view of prior licenses or assignments, it will negotiate in good faith to enable the Successor Contractor to practice such subject invention in the form of CRADAs, Work For Others agreements, licenses or other appropriate agreements, in order to fulfill the missions and programs of the Facility. It is the intention of the Contractor to enable the Successor Contractor to continue operation of the Facility, including the Facility's technology transfer program. In any event, the Successor Contractor retains the nonexclusive royalty-free right to practice the Subject Invention on behalf of the U.S. Government.

(b) Costs

(1) Except as otherwise specified in the clause of this Contract entitled, "Technology Transfer Mission," as allowable costs for conducting activities pursuant to provisions of that clause, no costs are allowable as direct or indirect costs for the preparation, filing, or prosecution of patent applications or the payment of maintenance fees or licensing and marketing costs after the Contractor elects to pursue commercialization of a Subject Invention under its privately-funded technology transfer program pursuant to paragraph (f) below. Should the Contractor make such election after allowable costs have been incurred with respect to the patenting of a particular Subject Invention, such costs shall be repaid from private funds concurrent with such election.

(2) For a four-year period from October 1, 1988, the effective date of Contract Modification M140, an amount not to exceed $200,000/year was agreed to be allowable as an indirect cost for activities such as the preparation, filing, or prosecution of patent applications or the payment of maintenance fees or

licensing and marketing costs.

(3) To the extent that the Contractor utilized indirect cost monies pursuant to paragraph (b)(2) above, the annualized balance of royalties or income (net) being returned to and used at the Facility shall be in the ratio of expenditure of allowable funds pursuant to paragraph (b)(2) above to the sum of such expended allowable funds plus any private Contractor funds for invention costs set forth in the clause entitled, "Patent Rights – Management and Operating Contracts, Nonprofit Organization or Small Business Firm Contractor." However, the annualized net royalties or income being returned to the Facility for use at the Facility shall in no event be less than fifty-one percent (51%) of the balance of royalties or income earned.

(4) To the extent that the Contractor utilized indirect cost monies pursuant to this clause, paragraph (b)(2) above, it shall provide reimbursement thereof in the form of funds to be used at the Facility when royalties or income from all invention activities set forth in the clause entitled, "Patent Rights – Management and Operating Contracts, Nonprofit Organization or Small Business Firm Contractor", become self sustaining. Such reimbursement shall be on an annualized basis and shall be equal to twenty percent (20%) of the balance of net royalties or income prior to distribution to the Contractor. Further, where the Contractor assigns or conveys title to a Subject Invention to other than an affiliate of the Contractor, the Contractor shall provide reimbursement of any indirect cost monies utilized with respect to such Subject Invention pursuant to paragraph (b)(2) above in the form of funds to be used at the Facility. Such reimbursement shall be made out of any net royalties or income from Subject Inventions (whether or not from the Subject Invention conveyed) before such royalties are used for any other purpose.

(c) Liability of the Government

(1) It is understood that the privately-funded technology transfer activities of the Contractor under this clause are not subject to the clause entitled, "Insurance--Litigation and Claims".

(2) The Contractor shall not include in any license agreement or assignment any guarantee or requirement, which would obligate the Government to pay any costs or create any liability on behalf of the Government.

(3) The Contractor shall include in all licensing agreements and in any assignment of title the following clauses unless otherwise approved or directed by the Contracting Officer following consultation with the DOE Patent Counsel:

(i) "This agreement is entered into by Battelle Memorial Institute (BMI) in its private capacity. It is understood and agreed that the U.S. Government is not a party to this agreement and in no manner whatsoever shall be liable for nor assume any responsibility or obligation for any claim, cost or damages arising out of or resulting from this agreement or the subject matter licensed assigned)."

(ii) "Nothing in this Agreement shall be deemed to be a representation or warranty by the U.S. Government of the validity of any of the patents or the accuracy, safety, or usefulness for any purpose, of any TECHNICAL INFORMATION, techniques, or practices at any time made available by BMI. The U.S. Government shall have no liability whatsoever to LICENSEE or any other person for or on account of any injury, loss, or damage of any kind or nature sustained by, or any damage assessed or asserted against, or any other liability incurred by or imposed upon LICENSEE or any other person, arising out of or in connection with or resulting from:

(A) The production, use, or sale of any apparatus or product, or the practice of the INVENTIONS;

(B) The use of any TECHNICAL INFORMATION, techniques, or practices disclosed by BMI; or

(C) Any advertising or other promotional activities with respect to any of the foregoing, and LICENSEE shall hold the U.S. Government harmless in the event the U.S. Government is held liable. BMI represents that it has the right to grant all of the rights granted herein, except as to such rights as the Government of the United States of America may have or may assert."

(d) Distribution of net income

In the event the Contractor engages in a privately funded technology transfer program under the clause of this Contract entitled, “Patent Rights – Management and Operating Contracts, Nonprofit Organization or Small Business Firm Contractor” or the clause of this Contract entitled, “Rights in Data – Technology Transfer”, such that private funds are utilized for technology transfer after the Contractor elects to pursue privately-funded commercialization of a Subject Invention or after the Contractor has received permission from the Contracting Officer to assert statutory copyright in a software program and received DOE approval to commercialize such software under its privately funded technology transfer program under paragraph (i) below, net income from such privately funded technology transfer program shall be distributed

as follows:

(1) Fifty-one percent (51%) of net income shall be used at the Facility for scientific research, development and education consistent with the research and development mission and objectives of the Facility. Forty-nine percent (49%) of such net income may be used by the Contractor at a location other than the Facility if such use is for scientific research, development, and education consistent with the research and development mission and objectives of the Facility in accordance with 35 USC Section 200 et seq.

(2) "Net income" is defined as that amount remaining after the expense of patenting costs, licensing and marketing costs, payments to inventors, and other expenses incidental to the administration of Subject Inventions is deducted from gross income received.

(e) Equity Plan

It is the intent of the Government and the Contractor that the Contractor shall, in its discretion, take reasonable and prudent actions from both a commercial and stewardship of the Facility's technology transfer perspective related to the ownership of equity received from third parties under this Contract. The Contractor shall submit to the Contracting Officer a plan, which shall set forth principles for the Contractor's acquisition, retention and disposition of equity received from third parties as consideration for licenses or assignments granted to such third party. Such plan shall consider, at a minimum,

(1) the manner in which the Contractor shall acquire such equity in a third party, including the manner in which the Contractor shall apportion capital contributions to such third party between the relative value of private Contractor contributions and the value of contributions representing a license under a Subject Invention;

(2) the manner in which the Contractor shall hold such equity, given that the Government has an undivided 51% interest in that portion of such equity representing the value of contributions resulting from a license to such Subject Invention;

(3) the manner in which the Contractor shall dispose of such equity, giving due consideration to the potential for a conflict of interest between the interests of the Government and the Contractor; and

(4) the manner in which the Contractor's inventors are compensated.

(f) The Contractor shall indicate whether a Subject Invention will be pursued under its government-funded technology transfer program or its privately-funded technology transfer program within six (6) months after the Subject Invention is reported to the Contractor, unless otherwise agreed in writing by the DOE Patent Counsel.

(g) In its privately-funded technology transfer program, the Contractor shall be substantially guided by the principles of U.S. Competitiveness and Fairness of Opportunity as set forth herein.

(h) When requesting approval from DOE to assert statutory copyright in a particular software package pursuant to the clause entitled "Rights in Data—Technology Transfer" (Clause I-93(e) herein), Contractor may request that commercialization of such software proceed under the provisions of this Clause H-9. If approved, no costs of such commercialization thereafter shall be allowable, and the proceeds of such commercialization shall be treated in accordance with paragraph (a) above as if such proceeds had resulted from the commercialization of a Subject Invention.

(End of Clause)

H-10 Continued Improvement Initiative

It is the intent of the Parties to continue to work together during the term of this Contract to develop and implement innovative approaches and techniques for improving Contractor performance and Contract administration. This initiative for continued improvement will focus on improving Contractor efficiency and effectiveness, enhancing Contractor accountability, gaining savings in Laboratory programs, improving cost-effective management of risks, and increasing efficiencies in Federal oversight of the Contract. Areas that the Parties will evaluate, include, but are not limited to, the following:

(a) Elimination/reduction of mandatory Hanford Site Services and ensure cost allocation equity;

(b) Contractor-provided facilities through long-term leasing or capital lease arrangements;

(c) Consolidated Laboratory concept and administration;

(d) Policies and procedures related to the Technology Transfer mission of the Laboratory.

(e) Incentive Compensation and/or other enhancements to variable pay programs; and

(f) Benefits and Pension reciprocity.

(End of Clause)

H-11 Standards of Contractor Performance Evaluation

(a) Use of objective standards of performance, self assessment and performance evaluation

(1) The Parties agree that the Contractor will utilize a comprehensive performance-based management approach for overall Laboratory management. The performance-based management approach will include the use of objective performance goals and indicators, agreed to in advance of each performance evaluation period, as standards against which the Contractor's overall performance of the scientific and technical mission obligations under this Contract will be assessed. The performance criteria will be limited in number and focus on results to drive improved performance and increased effective and efficient management of the Laboratory.

(2) The Parties agree to utilize the process described within Section J, Appendix E "Performance Evaluation and Measurement Plan (PEMP) to evaluate the performance of the Laboratory. The Parties further agree that the evaluation process described in Appendix E will be reviewed annually and modified, if necessary, by agreement of the Parties. If agreement of the Parties cannot be reached, the Contracting Officer has the unilateral right to establish the evaluation process.

(3) The Parties agree that the Contractor will conduct an ongoing self-assessment process as the principal means of determining its compliance with the Contract Statement of Work and performance indicators identified within Section J, Appendix E. To assist the DOE in accomplishing the appropriate level of oversight, the Contractor shall work in partnership and cooperation with DOE and other external organization, as appropriate, in the self-assessment process. This work includes, but is not limited to, the development and execution of self-assessments and the utilization of the results for continuous improvement.

(4) The Contractor shall provide periodic updates, as requested by the DOE, on the performance against the Appendix E. The Contractor shall provide a formal status briefing at mid-year and year-end, and a formal self-evaluation report to the DOE at year-end. Specific due dates and formats for the above-mentioned briefings and reports shall be agreed to by the Laboratory Director and the DOE-RL Associate Manager for Science & Technology (AMT). In addition, the year-end report must provide:

(i) an overall summary of performance for the performance period;

(ii) performance ratings for each PEMP element and the Laboratory overall; and

(iii) a summary of key strengths and opportunities for improvement.

(5) DOE, as a part of its responsibility for oversight, evaluation, and information exchange, shall provide an annual programmatic appraisal and other appraisals, and reviews of the Contractor's performance of authorized work in accordance with the terms and conditions of this Contract. The Office of Science, through the AMT, has the lead responsibility for oversight of the programs and activities conducted by the Contractor.

(6) The Contracting Officer shall annually provide a written assessment of the Laboratory's performance to the Contractor, which shall be based upon the process described in Appendix E. The Parties acknowledge that the performance levels achieved against the specific performance objectives and measures shall be the primary, but not sole, criteria for determining the Contractor's final performance evaluation and rating. The Contractor's self-assessment results, to include results of any third party reviews which may have been conducted during the evaluation period, will be considered at all levels to assess and evaluate the Contractor's performance. The Contracting Officer may also consider other relevant information not specifically measured by the objectives and measures established within Appendix E that is deemed to have an impact (either positive or negative) on the Contractor's performance. Other relevant information that may be used by the Contracting Officer may include, but is not limited to, information gained from peer reviews, operational awareness, outside agency reviews (i.e., OIG, GAO, DCAA, etc.) conducted throughout the year, annual reviews (if needed), and DOE "for cause" reviews. With exception of "for cause" reviews, the DOE RL Operations Office will conduct no more than one management and operations review per year. The on-site portion of such reviews will normally last no more than two weeks. Contractor success in meeting or exceeding performance expectations in a particular management or operations functional area may be rewarded with less frequent – or no – review of the functional area. Conversely, marginal performance or "for cause" situations may result in more frequent reviews.

(b) Standards of performance measure review

(1) The Parties agree to review the PEMP elements (goals, objectives, performance indicators, and expected levels of performance) contained in Appendix E annually and to modify them upon the agreement of the Parties;

provided, however, that if the Parties cannot reach agreement on all the goals, objectives, performance indicators, and expected levels of performance for the next period, the Contracting Officer shall have the unilateral right to establish reasonable new goals, objectives, performance indicators and expected levels of performance and/or to modify and/or delete existing goals, objectives, performance indicators, and expected levels of performance. It is expected that the goals, objectives, performance indicators, and expected levels of performance will be modified by the Contractor and the DOE as new areas of emphasis or priorities emerge which the Parties may agree warrant recognition in the performance-based integrated management approach.

(2) Failure to include an objective or performance indicator in the Contract Appendix E does not eliminate the Contractor's obligation to comply with all applicable terms and conditions as set forth elsewhere within the Contract.

(3) In the event the Contracting Officer or HCA decides to exercise the rights set forth in paragraphs (a)(6) or (b)(1) above, he/she will notify the Contractor, in writing, of the intended decision ten days prior to issuance.

(End of Clause)

H-12 Notice Regarding the Purchase of American-Made Equipment and Products – Sense of Congress (AL-2003-03)

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-Made.

(End of Notice)

H-13 Care Of Laboratory Animals

(a) Before undertaking performance of any contract involving the use of Laboratory animals, the Contractor shall register with the Secretary of Agriculture of the United States in accordance with Section 6, Public Law 89-544, Laboratory Animal Welfare Act, August 24, 1966, as amended. The Contractor shall furnish evidence of such registration to the Contracting Officer.

(b) The Contractor shall acquire animals used in research and development programs from a dealer licensed by the Secretary of Agriculture, or from exempted sources in accordance with the Public Laws enumerated in (a), above, of this provision.

(c) In the care of any animals used or intended for use in the performance of this Contract, the Contractor shall comply with USDA regulations governing animal care and usage, as well as all other relevant local, State, and Federal regulations

concerning animal care and usage. In addition the Contractor will ensure that research will be conducted in a facility that either: (i) has a current National Institutes of Health (NIH) assurance number for animal care and usage, or (ii) is currently accredited for animal care and usage by an appropriate organization such as the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International, or (iii) has a DOE Assurance Plan Number.

(End of Clause)

H-14 Laboratory Facilities

Laboratory Facilities. DOE agrees to continue to furnish and make available to the Contractor, for its possession and use in performing the work under this Contract, the Laboratory facilities designated as follows:

(a) The Government-owned or leased land, buildings, utilities, equipment and other facilities situated at the Laboratory Site in Richland, Washington; and

(b) Government-owned or leased facilities at such other locations as may be approved by DOE for use under this Contract.

DOE also reserves the right to make part of the designated land or facilities available to other Government agencies or other users on the basis that the responsibilities and undertakings of the Contractor will not be unreasonably interfered with. Before exercising its right to make any part of the land or facilities available to another agency or user, DOE will confer with the Contractor.

Subject to mutual agreement, other facilities may be used in the performance of the work under this Contract.

(End of Clause)

H-15 Privacy Act Records

In accordance with the Privacy Act of 1974, 5 U.S.C. 552a (Public Law 93-579) and implementing DOE regulations (10 CFR 1008), the Contractor shall maintain the following "Systems of Records" on individuals in order to accomplish the United States Department of Energy functions:

(a) Intelligence Related Access Authorization (DOE-15)

(b) Personnel Radiation Exposure Records (DOE-35)

(c) Security Education and/or Infraction Reports (DOE-48)

(d) Access Control Records of International Visits, Assignments, and Employment at DOE Facilities and Contractor Sites (DOE-52)

(e) Counterintelligence Administrative and Analytical Records and Reports (DOE-81)

(f) Counterintelligence Investigative Records (DOE-84)

The parenthetical DOE number designations for each system of records refer to the official "System of Records" number published by the DOE in the Federal Register pursuant to the Privacy Act.

(End of Clause)

H-16 Administration of Subcontracts

(a) The administration of all subcontracts entered into and/or managed by the Contractor, including responsibility for payment hereunder, shall remain with the Contractor unless assigned at the direction of DOE.

(b) The DOE reserves the right to direct the Contractor to assign to the DOE, or another Contractor, any subcontract awarded under this Contract.

(c) The DOE reserves the right to identify specific work activities in Section C "Description/Specifications" to be removed (de-scoped) from the Contract in order to contract directly for the specific work activities. The Department will work with the Contractor to identify the areas of work that can be performed by small businesses in order to maximize direct federal contracts with small businesses. The Contractor agrees to facilitate these actions. This facilitation will include identifying direct contracting opportunities valued at $5 million or above for small businesses for work presently performed under subcontracts, as well as work performed by Contractor employees. The Contractor shall notify the DOE one-year in advance of the expiration of any of its subcontracts valued at $5 million or above, or if applicable, one-year prior to the exercise of an option and/or the option notification requirement, if any, contained in the subcontracts. The DOE will review this information and the requirements of the Contractor to determine the appropriateness for small business opportunities. This review may result in the DOE electing to enter into contracts directly with small businesses for these areas of work. The Contracting Officer will give notice to the Contractor not less than 120 calendar days prior to the date for exercising the option and/or the expiration of the subcontract and/or prior to entering into a contract for work being performed by Contractor employees. Following award of these direct federal contracts, DOE may assign administration of these contracts to the Contractor. The Contractor agrees to accept assignments from the DOE for the administration of these contracts. The parameters of the Contractor's responsibilities

for the small business contracts and/or changes, if any, to this Contract, will be incorporated via a modification to the Contract. The Contractor will accept management and administration responsibilities, if so determined.

(d) To the extent that DOE removes (de-scopes) work from this Contract, any such removed or withdrawn work shall be treated as a change in accordance with the clause of this Contract, titled Changes (Dec 2000). A "material change" for the purpose of this clause is defined as cumulative changes during a fiscal year that result in a plus or minus 10% change to the Laboratory's budget. To the extent that DOE assigns the administration of a contract to the Contractor, or removes (de-scopes) work, the Parties reserve the right to negotiate an equitable adjustment in the Contractor's annual available performance fee. The negotiation of fee will be in accordance with the Contract clause entitled "Determining Total Available Performance Fee and Fee Earned". The Parties will also negotiate appropriate adjustments to the Contractor's Subcontracting Plan or any other applicable Contract terms and conditions impacted by such withdrawal or addition of work scope to recognize the changes to the Contractor's subcontracting base and goals.

(End of Clause)

H-17 Long-Range Planning, Program Development and Budgetary Administration

(a) Basic Considerations. Throughout the process of planning, and budget development and approval, the Parties recognize the desirability for close consultation, for advising each other of plans or developments on which subsequent action will be required, and for attempting to reach mutual understanding in advance of the time that action needs to be taken.

(b) Institutional Planning. It is the intent of the Parties to develop annually an Institutional Plan covering a five-year period. Development of the Institutional Plan is the strategic planning process by which the Parties through mutual consultation, reach agreement on the general types and levels of activity which will be conducted at the Laboratory for the period covered by the plan. The Institutional Plan approved by DOE provides guidance to the Laboratory for long-range planning of programs, site and facility development, and for budget preparation. It also serves as a baseline for placement of work at the Laboratory.

(c) Work Authorization

(1) To carry out DOE's program of work, the Contractor will submit, in writing, to the DOE, work program documents covering work it believes it can and should pursue hereunder in the best interest of scientific progress.

(2) Work programs shall be developed and approved in accordance with DOE's system for preparing, budgeting, and authorizing work, and shall constitute work to be performed under this Contract during the pertinent periods

involved. Such work programs may include program and project performance objectives and milestones. Subject to the other provisions of this Contract, and except as the Parties may otherwise agree as part of an agreed work program for basic science, additions to, deletions from, and other changes in the agreed work program for basic science, within the general scope thereof and not constituting major changes in the agreed work program, may be made by the Contractor as and when it appears to the Contractor to be in the best interest of scientific and technical objectives of the agreed work program to do so.

(End of Clause)

H-18 Application of DOE Contractor Requirements Documents

(a) Performance. The Contractor will perform the work of this Contract in accordance with each of the Contractor Requirements Documents (CRDs) appended to this Contract as "Appendix D," and "Appendix F" until such time as the Contracting Officer approves the substitution of an alternative procedure, standard, system of oversight, or assessment mechanism resulting from the process described below.

(b) Laws and Regulations Excepted. The process described in this clause shall not affect the application of otherwise applicable laws and regulations of the United States, including regulations of the Department of Energy.

(c) Deviation Processes in Existing Orders. This clause does not preclude the use of deviation processes provided for in existing DOE directives.

(d) Proposal of Alternative. The Laboratory Director may, at any time during performance of this Contract, propose an alternative procedure, standard, system of oversight, or assessment mechanism to the requirements in a listed CRD by submitting to the Contracting Officer a signed proposal describing the nature and scope of the alternative procedure, standard, system of oversight, or assessment mechanism (alternative), the anticipated benefits, including any cost benefits, to be realized by the Contractor in performance under the Contract, and a schedule for implementation of the alternate. In addition, the Contractor shall include an assurance signed by the Laboratory Director that the revised alternative is an adequate and efficient means to meet the objectives underlying the CRD. Upon request, the Contractor shall promptly provide the Contracting Officer any additional information that will aid in evaluating the Contractor's proposal.

(e) Action of the Contracting Officer. The Contracting Officer shall within sixty (60) days:

(1) deny application of the proposed alternative;

(2) approve the proposed alternative, with conditions or revisions;

(3) approve the proposed alternative; or

(4) provide a date by which a decision will be made (not to exceed an additional 60 days).

(f) Implementation and Evaluation of Performance. Upon approval in accordance with (e)(2) or (e)(3)above, the Contractor shall implement the alternative. In the case of a conditional approval under (e)(2) above, the Contractor shall provide the Contracting Officer with an assurance statement, signed by the Laboratory Director, that the revised alternative is an adequate and efficient means to meet the objectives underlying the CRD. Additionally, the statement shall describe any changes to the schedule for implementation. The Contractor shall then implement the revised alternative. DOE will evaluate performance of the approved alternative from the date scheduled by the Contractor for implementation.

(g) Application of Additional or Modified CRDs. During performance of the Contract, the Contracting Officer may notify the Contractor that he or she intends to unilaterally add CRDs not then listed in Appendix D or Appendix F or modifications to listed CRDs. Upon receipt of that notice, the Contractor, within thirty (30) calendar days, may, in accordance with paragraph (d) of this clause, propose an alternative procedure, standard, system of oversight, or assessment mechanism. The resolution of such a proposal shall be in accordance with the process set out in paragraphs (e) and (f) of this clause. If an alternative proposal is not submitted by the Contractor within the thirty (30) calendar-day period, or, if made, is denied by the Contracting Officer under paragraph (e), the Contracting Officer may unilaterally add the CRD or modification to Appendix D or Appendix F. The Contractor and the Contracting Officer shall identify and, if appropriate, agree to any changes to other Contract terms and conditions, including cost and schedule, resulting from the addition of the CRD or modification.

(h) Deficiency and Remedial Action. If, during performance of this Contract, the Contracting Officer determines that an alternative procedure, standard, system of oversight, or assessment mechanism adopted through the operation of this clause is not satisfactory, the Contracting Officer may, in his or her sole discretion, determine that corrective action is necessary and require the Contractor to prepare a corrective action plan for the Contracting Officer's approval. If the Contracting Officer is not satisfied with the corrective action taken, the Contracting Officer may direct corrective action to remedy the deficiency, including, if appropriate, the reinstatement of the CRD.

(End of Clause)

H-19 Cap on Liability

(a) The Parties have agreed that the Contractor's liability, for certain obligations it has assumed under this Contract, shall be limited as set forth in paragraph (b) below. These limitations or caps shall only apply to obligations the Contractor has assumed pursuant to the following:

(1) The cost principle at DEAR 931.205-47 titled "Costs Related to Legal and Other Proceedings" [DOE coverage—paragraph (h), Costs Associated with Whistleblower Actions];

(2) The clause titled "Property", paragraph (f)(1)(i)(C);

(3) The clause titled "Insurance – Litigation and Claims", (h), with respect to prudent business judgment only; and

(4) The clause titled "Insurance – Litigation and Claims", (j)(2), except for punitive damages resulting from the willful misconduct or lack of good faith on the part of the Contractor's managerial personnel as defined in the clause titled "Definitions".

(b) The Contractor shall be liable for an amount not-to-exceed 1.25 times the maximum total available performance fee for each fiscal year. The amount of the Contractor's liability shall be calculated on a cumulative, per fiscal year basis. The annual cap which will apply shall be based on the fiscal year in which the Contractor's act or failure to act was the proximate cause of the liability assumed by the Contractor. In the event the Contractor's act or failure to act overlaps more than one fiscal year, the limitation will be the annual limitation for the last fiscal year in which the Contractor's act or failure to act occurred. If the Contractor's cumulative obligations equal the amount of the annual limitation of liability, the Contractor shall have no further responsibility for the costs of the liabilities it has assumed pursuant to (a)(1) though (4) above.

(End of Clause)

H-20 Performance Based Management and Oversight

(a) Performance-based management shall be the key enabling mechanism for establishing the DOE-Contractor expectations on oversight and accountability. DOE expectations (outside of individual program performance and requirements of laws and regulations) and performance targets shall be established through the Performance Evaluation and Measurement Plan (PEMP) pursuant to the clause entitled "Standards of Contractor Performance Evaluation". This PEMP shall establish the expected strategic results in the areas of mission accomplishment, stewardship and operational excellence. Mission performance goals shall be

established by agreement with each major customer of the Laboratory, and customer evaluation will be the primary means of evaluating mission performance. Stewardship and operational goals shall be established by agreement with DOE. Contractor self-assessment, third party certification, and Contractor and DOE independent oversight, as appropriate, shall be the primary means for assessing stewardship and operational performance. Routine DOE oversight of Contractor performance will be conducted at the systems level.

(b) The performance-based management system shall be the primary vehicle for addressing issues associated with performance expectations. In the event of a substantive performance shortfall in any area, the appropriate improvement expectations and targets will be incorporated into the PEMP and tracked through self-assessment and independent oversight, as appropriate.

(c) Compliance with applicable Federal, State and local laws and regulations, and permits and licenses, shall be primarily determined by the cognizant regulatory agency and DOE will primarily rely upon the determination of the external regulators in assessing Contract compliance. DOE oversight will be achieved through periodic assessments at the management system level, including review of Contractor self-assessments and assessments by independent third parties.

(End of Clause)

H-21 Site and Occupational Health Services

(a) Site Services

The Contractor may submit to the Contracting Officer alternative proposals for obtaining services currently provided by other contractors as Shared Services. All proposals will reflect innovative cost-effective approaches whereby the Contractor will obtain services in a manner reflecting the best interests of the Government and the Contractor. The Contractor will consider contractual and regulatory constraints in all proposals. The Contractor must submit proposals under this clause to the Contracting Officer a minimum of 90 calendar days in advance of the proposed date for transitioning services.

The Contracting Officer shall accept, reject, or conditionally accept the proposal, in writing, within 90 calendar days of receipt. The Contracting Officer shall provide an explanation for any rejection.

(b) Occupational Health Services

Occupational Health Services are provided primarily by the Hanford Onsite Medical provider.

(i) The Contractor shall obtain for itself and, as directed by the Contracting Officer, shall require subcontractors performing work at the Richland Laboratory Campus to obtain the following services from the Onsite

Medical provider unless an exception is granted, in writing, by the Contracting Officer: occupational medical evaluations including return to work and fitness for duty evaluations, pre-placement evaluations, work restriction reviews, medical surveillance evaluations, health care centers, case management for plant injuries, and medical records services.

(ii) Other Occupational Health Services not specified within paragraph (b)(i) above, such as, but not limited to, a wellness program, voluntary health maintenance examinations, and immunization services, may be procured from other competent providers. As stipulated under paragraph (a) above if the Contractor elects to utilize an outside medical provider for any of the these services, the Contractor must submit a proposal 90 calendar days in advance of a proposed date for transitioning services. The Contracting Officer shall accept, reject, or conditionally accept the proposal, in writing, within 90 calendar days of receipt as called for under paragraph (a) of this clause. Furthermore, should the Contractor elect to utilize an outside medical provider for health maintenance examinations, the Contractor shall ensure that full records of such examinations, including but not limited to, raw data, x-rays, blood and urine tests, and physician notes are provided to DOE for disposition in a Records Holding Area consistent with statutes and regulations pertaining to the retention of such records. Such services acquired by the Contractor must be in the most cost-effective manner for the Contractor and the Government and must be more cost-effective than the manner in which these services are provided by the Hanford Onsite Medical provider.

(c) Cost-Efficiency Comparison Information

To facilitate the cost-efficiency comparisons required under paragraphs (a) and (b) above, DOE agrees to provide pricing information associated with services provided by other Hanford Site contractors to the fullest extent possible and at the highest level sufficient to perform such analysis. DOE will deliver the information to the Contractor within 30 days of the Contractor's request or such time period as agreed to by the Parties.

(End of Clause)

H-22 Lobbying Restriction (Energy & Water Development Appropriations Act, 2003) (AL-2003-03)

The Contractor agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

(End of Clause)

H-23 Lobbying Restriction (Department of Interior and Related Agencies Appropriations Act, 2003) (AL-2003-03)

The Contractor agrees that none of the funds obligated on this award shall be made available for any activity or the publication or distribution of literature that in any way tends to promote public support or opposition to any legislative proposal on which Congressional action is not complete. This restriction is in addition to those prescribed elsewhere in statute and regulation.

(End of Clause)

H-24 Determining Total Available Performance Fee and Fee Earned

In implementation of the clause in Section I entitled, "Total Available Fee: Base Fee Amount and Performance Fee Amount," the following shall apply:

(a) There shall be no base fee for the period of this Contract. The Parties have agreed to a multi-year performance fee for the Contract period, to be 100% at risk, and determined as described below:

(1) During the period of Contract performance the total available performance fee for FY03 shall be $7,300,000. For FY04 through FY07, the total available performance fee shall be $7,800,000 per fiscal year.

(2) The Parties have agreed that in the event of a significant change (greater than plus or minus 10%) to the Laboratory's budget for any fiscal year, the negotiated fee shall be subject to adjustment. The Parties may re-negotiate, in good faith, the total available performance fee pool. The FY 2003 Estimated Allowable Cost (Budget Authority) will serve as the base year to which each fiscal year Estimated Allowable Cost (Budget Authority) will be compared.

(b) Determination of Total Available Fee Amount Earned.

The Government shall, at the conclusion of each specified evaluation period, evaluate and/or validate the Contractor's performance in accordance with the clause in Section I entitled "Total Available Fee: Base Fee Amount and Performance Fee Amount." The evaluation of the Contractor performance shall be in accordance with Section J, Appendix E "Performance Evaluation and Measurement Plan."

(End of Clause)

H-25 Project Management System

The Contractor shall provide a Project Management System that delivers the policies, procedures, and tools that assist PNNL project managers in completing projects on time and within budget. The system will be applied to all projects using a graded approach

based upon the nature, complexity, risk, size, and sensitivity of the work being performed. Attributes of the system will include the following:

(a) Definition and organization of the work scope

(b) Planning

(c) Work authorization

(d) Performance assessment

(e) Change management

(f) Closeout.

The Contractor shall conduct periodic self-assessments and independent reviews of the effectiveness of its Project Management System by comparing performance with industry standards and best practices.

The Contractor shall implement an Earned Value management system for capital projects exceeding $20 million that is compliant with ANSI/EIA-748-1998. The Contractor shall certify to the Government that it has complied with the standard and provide a system description document with the certification. The Contractor shall be prepared to demonstrate compliance. The Contractor shall support a Government review and provide requested documentation to the Government in support of a review, if the Government determines a need for such a review.

For projects proposed to be funded by the Science Laboratory Infrastructure Program, the Contractor shall provide support to DOE as requested by the federal Project Manager.

(End of Clause)

H-26 Advance Understandings on Allowable Costs

(a) Allowable costs under this Contract shall be determined according to the requirements of DEAR 970.5232-2, Payments and Advances. For purposes of effective Contract implementation, certain items of cost are being specifically identified below as allowable and/or unallowable under this Contract to the extent indicated:

(1) Home office expenses are allowable to the extent that such expenses are allocated consistent with FAR 31.2 and Cost Accounting Standards. Because this is an M&O contract, a substantially reduced allocation of Home Office expense is calculated consistent with DEAR 970.3102-3-70 and CAS 403 Allocation of Home Office Expenses to Segments using the 3 factor formula for allocation of residual expenses as currently applied by the Contractor.

(2) Losses and expenses (including settlements made with the consent of the Contracting Officer) sustained by the Contractor in the performance of this Contract and certified in writing by the Contracting Officer to be reasonable are allowable, except the losses and expenses expressly made unallowable under other terms and conditions of this Contract.

(3) Stipends and payments made to reimburse travel or other expenses of researchers and students who are not employed under this Contract but are participating in research, educational or training activities under this Contract are allowable to the extent such costs are incurred in connection with fellowship, international agreements, or other research, educational or training programs approved in writing by the Contracting Officer.

(4) Payments to educational institutions for tuition and fees for researchers and students who are not employed under this Contract but are participating in research, educational or training activities under this Contract, or institutional allowances in connection with fellowship or other research, educational or training programs are allowable.

(5) Costs incurred or expenditures made by the Contractor, as directed, approved, or ratified in writing by the Contracting Officer and not unallowable under any statute, regulation, or other provision of this Contract, are allowable.

(6) In accordance with FAR 31.205-43, Meetings, Meals, and Refreshments (MMR) are allowable and/or unallowable as follows:

The costs of meeting rooms, meeting supplies and equipment rental, and, in very limited circumstances, meals for PNNL staff members and guests incidental to conducting business may be allowable on Contract work. Allowability of these costs is governed by the policy and practices described below.

Allowable Cost

Certain expenses associated with a business meeting are allowable on Contract work subject to the following general criteria. All costs incurred which do not conform to the criteria stated herein are unallowable. Meals and refreshment costs associated with all meetings that meet the definition of a “conference” under DOE Order 110.3 are unallowable.

General Criteria:

Purpose - The principal purpose of the meeting must be the dissemination of business, technical, or professional information necessary for the conduct of PNNL business or, performance of the Contract to support and further accomplishing the PNNL's mission (FAR 31.205.43).

Reasonableness - The cost must be considered reasonable in accordance with FAR 31.201-3.

Substantiation - Documentation must be provided to Contractor management that substantiates the business purpose of the meeting, justification for incurring the cost, and a detailed cost estimate or, if after-the-fact, a statement of the costs incurred.

The following type of expenses may be allowable:

Meeting Room Rental - Rental of a conference room is allowable when justified by a bona fide business reason. DOE or Contractor-owned facilities and equipment shall be given first consideration. Prudence and common sense should govern the decision to secure an off-site location. An itemized receipt, showing a complete breakdown of all costs, must be provided.

Audiovisual equipment - Rental of equipment to aid with presentation at a meeting is an allowable expense. An itemized receipt, showing a complete breakdown of all costs, must be included with the expense report.

Meeting supplies - Meeting supplies such as flip charts, markers, and tape are allowable as a MMR expense.

Working Meals – Working meals shall only be provided when other options, such as breaking for lunch, have been thoughtfully considered and determined to be impracticable. Allowability of expenses for working meals and refreshments under this Contract is limited. Meal and refreshment cost must meet all of the following criteria, in addition to the general criteria above, to be allowable.

i. The food must be incidental to the meeting and necessary in order to maintain the continuity of the meeting. Discussions or presentations must continue throughout the meeting period (e.g., no breaks for meals or refreshments). The food must be served at the meeting location (i.e., the meal must be served in the meeting room).
ii. Attendance during the meal is mandatory for full participation in the meeting and/or maintenance of group cohesiveness. Attendees

cannot breakaway from the meeting without missing essential discussions, lectures, or presentations.

iii. Meetings must have non-Hanford guests in attendance (i.e., non-Hanford staff with whom Laboratory staff are conducting business). For the purposes of this definition, Hanford staff includes all RL, ORP, and Hanford Contractor personnel.

iv. Further, meetings:

(A) Must be at least four hours in length for refreshments to be allowable.
(B) Must be at least six hours or more for both a working meal and refreshments to be allowable.

v. The average cost per attendee of a working meal is limited to 30% of the location's M&IE per diem rate; refreshments are limited to 15% of the M&IE per diem rate.

(A) Cost includes caterer's fee, tax, and gratuity.
(B) Refreshments are defined as coffee, tea, juices, soft drinks, pastries, cookies, and other similar items.

vi. The following documentation must be provided to Contractor management to demonstrate the meeting meets the criteria:

(A) Detailed Agenda;
(B) Justification should address the following as a minimum:

I. The meal is incidental to and an integral part of the conference or meeting;
II. Attendance at the meal is necessary for full participation;
III. Attendees are not free to take meals elsewhere without missing essential formal discussions; and
IV. The meal is part of a formal conference or meeting that includes not only functions such as speeches or business carried on during a seated-meal, but also includes substantial functions taking place separate from the meal.

(C) List of attendees and their affiliation; and
(D) Total cost of meals and refreshments and the cost per person (estimated if advance approval is being requested).

vii. Approval

(A) All expenses must be approved by the Line Manager;
(B) Additional approval must be obtained from the Travel Accounting Section of Business Support Services

(verifying that the meeting meets the above criteria and the cost is reasonable); and

(C) Advance approval from Travel Accounting Manager is recommended. Advance approval allows a 10% tolerance in cost-per-person for fewer than planned attendees and "no-shows". Without advance approval there is no tolerance in the cost-per-person rate.

Reward and Recognition Event - Meals served at the PNNL Recognition & Rewards Program Annual Event to staff and guests as described in the approved Program Plan are allowable. The meals must be considered reasonable in accordance with FAR 31.201-3. Alcohol, entertainment, gifts, and decorations for this event are unallowable.

Employment Interview Meals - On occasion, an external employment candidate may be provided a meal as part of the interview activity. The meal expense for the candidate(s) is allowable for both on and off-site meals. To be allowable, the meal must be an integral and necessary part of the interview process. If the candidate is internal, no meal costs are allowable. The cost of the interviewee's meal reduces the meal cost claimed by the candidate on travel status. For an interviewer in travel status, the meal cost is covered in the meals category of the Travel Expense Report.

Overtime meals - When called for by the bargaining unit contract, overtime meals are allowable for the bargaining unit staff, their supervisors, and other non-bargaining unit staff required to be present.

Meals Provided to Government Employees - If a meal is provided to a Government employee, the Government employee must be notified of the cost of the meal and a mechanism must be provided for he/she to pay for the meal. If the Government employee is on travel status, he/she may choose to have that day's meal per diem reduced in lieu of making the payment. The requirement for providing notification and a payment mechanism must be met regardless if the meal is allowable or unallowable.

Other Items/Events - Requests for approval of the allowability of other necessary and reasonable Meeting, Meal, and Refreshment costs not covered under this policy must be made to the PNNL CFO. After determining allowability of the request is appropriate, the Supervisor, Travel Accounting will submit the request to the DOE Contracting Officer for written approval.

Documentation:

i. Business purpose and justification for the expenditure;

ii. Detailed cost estimate;
iii. Attendee list with affiliation (if applicable);
iv. Supporting documentation from client (if available); and
v. Line manager signature approval.

Unallowable Cost

Meeting, Meal, and Refreshment expenses not covered above are unallowable. Specific examples include:

i. Meals provided to staff or guests away from the business meeting and/or conference location (e.g., breaking to have a meal at a restaurant);

ii. A staff member's lunch with a DOE representative or another Government client or associate Contractor;

iii. Meal expenses for interviews with current PNNL staff members;

iv. Meal expenses for PNNL staff involved in interviewing potential PNNL employees;

v. Meal costs for spouses of either party of an interview;

vi. Alcoholic beverages under any circumstance;

vii. Gifts;

viii. Entertainment expenses;

ix. Costs related to Protocol functions unless otherwise approved in writing in advance by the DOE Contracting Officer;

x. The cost of in-home functions unless otherwise approved in writing in advance by the DOE Contracting Officer;

xi. Holiday or staff Parties;

xii. Rental of formal wear for functions attended; and

xiii. Meals and refreshments associated with internal meetings are unallowable unless it involves situations that relate to imminent danger to human life or the destruction of Government property.

(7) Appropriate charges are allowable in accordance with reimbursement policies mutually agreed upon in advance in writing by the Contracting

Officer for the use of Battelle facilities and general purpose equipment and appropriate charges for the use of special purpose equipment when DOE-owned special purpose equipment in Contractor's custody is not available for such use. Definitions follow:

Battelle facilities: Battelle-owned or -leased general purpose facilities included in the Consolidated Laboratory. Such general purpose facilities are comprised of buildings, trailers, and structures that house research activities and necessary support functions, including those devoted to administration and general services. Buildings and structures include the building service equipment, such as that required for heat, power, ventilation, etc., that is carried in the property records as part of the value of the building or structure.

Special purpose equipment: Equipment used in the direct support of the technical aspects of research and development activities. It includes all personal workstations, all equipment in the custody of a research organization, and all client (OFA, DOE related service, non-1830 client) funded equipment. SPE excludes Laboratory infrastructure equipment (general purpose equipment). (Note: Long-standing DOE and Battelle agreements define computers in the possession of support organizations as special purpose equipment.)

General purpose equipment: Equipment that is administrative in nature (i.e., not research equipment), of a general use or institutional nature that benefits multiple cost objectives and is required for Laboratory-wide needs. It includes equipment used in support of landlord functions, including equipment that would normally be provided to a tenant. (Note: Long-standing DOE and Battelle agreements define computers in the possession of support organizations as special purpose equipment.)

(8) Imputed interest costs relating to leases classified and accounted for as capital leases under generally accepted accounting principles (GAAP) are allowable, provided that the decision to enter into a capital leasing arrangement has been specifically authorized and approved in writing by the DOE Contracting Officer in accordance with applicable procedures and such interest costs are recorded in an appropriately specified DOE account established for such purpose.

(End of Clause)

H-27 Employee Concerns Program

(a) The Contractor shall develop and maintain an employee concerns program (ECP) and plan to be reviewed and approved by DOE.

(1) Contractor and subcontractor personnel shall be informed of the availability of the ECP, their right to raise concerns relating to the

environment, safety, health, or management of DOE-related activities through the Contractor or Departmental ECP programs and to do so without any fear of harassment or reprisal.

(2) The Contractor shall evaluate and attempt to resolve employee concerns in a manner that protects the health and safety of both employees and the public, ensure effective and efficient operation of programs, and use alternative dispute resolution techniques whenever appropriate.

(3) The Contractor shall conduct an annual self-assessment to measure the effectiveness of the ECP. Problems that hinder the ECP from achieving its objectives shall be corrected.

(4) The Contractor shall provide timely notification to the Department of any significant staff concerns or allegations of retaliation or harassment. The Contractor shall cooperate with any Departmental actions including requests for documentation or information involving employee concerns.

(b) The Contractor currently has in place an ECP that meets these requirements. If the Contractor revises the ECP, a copy of the revised ECP shall be provided to DOE for approval.

(End of Clause)

H-28 Greening the Government Through Federal Fleet and Transportation Efficiency

When performing motor vehicle fleet operations for the Department of Energy, the Contractor will conduct such operations in accordance with the requirements of Executive Order 13149 of April 21, 2000, Greening the Government Through Federal Fleet and Transportation Efficiency, including implementing guidance for the Department of Energy fleet. Such operations should include the use of environmentally preferable motor vehicle products in the maintenance of these vehicles when such products are reasonably available, and meet manufacturers warranty requirement and applicable performance standards. Environmentally preferable motor vehicle products include re-refined motor vehicle lubricating oils, retread tires, and bio-based motor vehicle products.

(End of Clause)

H-29 Conditional Payment of Fee or Profit--Safeguarding Restricted Data and Other Classified Information (66 Fed. Reg. 8560, Feb. 1, 2001)

(Note: DOE is currently finalizing a new Conditional Payment of Fee or Profit – Safeguarding Restricted Data and Other Classified Information clause through the rulemaking process. When the new clause comes into effect, the Contractor will have the option to retain the current clause or modify the Contract and adopt the new clause.)

(a) General.

(1) The payment of fee or profit (i.e., award fee, fixed fee, and incentive fee or profit) under this Contract is dependent upon the Contractor's compliance with the terms and conditions of this Contract relating to the safeguarding of Restricted Data and other classified information (i.e., Formerly Restricted Data and National Security Information) including compliance with applicable laws, regulations, and DOE directives. The term "Contractor" as used in this clause to address failure to comply shall mean "Contractor or Contractor employee."

(2) In addition to other remedies available to the Federal Government, if the Contractor fails to comply with the terms and conditions of this Contract relating to the safeguarding of Restricted Data and other classified information, the Contracting Officer may unilaterally reduce the amount of earned fee, fixed fee, or profit which is otherwise payable to the Contractor in accordance with the terms and conditions of this clause.

(3) Any reduction in the amount of fee or profit earned by the Contractor will be determined by the severity of the Contractor's failure to comply with Contract terms and conditions relating to the safeguarding of Restricted Data or other classified information pursuant to the degrees specified in paragraph (c) of this clause.

(4) Any reduction in the amount of fee or profit earned by the Contractor relating to the safeguarding of Restricted Data or other classified information will be determined under this clause and not under the clause in this Contract entitled "Conditional Payment of Fee, Profit or Incentives".

(b) Reduction Amount.

(1) If it is found that the Contractor has failed to comply with Contract terms and conditions relating to the safeguarding of Restricted Data or other classified information, the Contractor's earned or fixed fee, or profit may be reduced. Such reduction shall not be less than 51% nor greater than 100% of the total fee or profit earned for a first degree performance failure, not less than 26% nor greater than 50% for a second degree performance failure, and up to 25% for a third degree performance failure. The Contracting Officer may consider mitigating factors that may warrant a reduction below the specified range, including a determination that no reduction should be made (see 48 CFR 904.402(c), 66 Fed. Reg. 8562).

(2) (i) For purposes of this clause, the Contracting Officer will at the time of Contract award allocate the total amount of fee or profit that is available under this Contract to equal periods of 12 months to run sequentially for the entire term of the Contract (i.e., from the effective date of the Contract to the expiration date of the Contract, including all options). The amount

of fee or profit to be allocated to each period shall be equal to the average monthly fee or profit that is available or otherwise payable during the entire term of the Contract, multiplied by the number of months established above for each period.

(ii) The total amount of fee or profit that is subject to reduction under this clause, in combination with any reduction made under any other clause in the Contract that provides for a reduction to the fee or profit, shall not exceed the amount of fee or profit that is earned by the Contractor in the period established pursuant to paragraph (b)(2)(i) of this clause in which a performance failure warranting a reduction occurs.

(c) Safeguarding Restricted Data and Other Classified Information. The degrees of performance failures relating to the Contractor's obligations under this Contract for safeguarding of Restricted Data and other classified information are as follows:

(1) First Degree: Performance failures that have been determined, in accordance with applicable DOE regulation or directive, to have resulted in, or that can reasonably be expected to result in, exceptionally grave damage to the national security. The following performance failures or performance failures of similar import will be considered first degree:

(i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating a risk of, loss, compromise, or unauthorized disclosure of Restricted Data or other classified information classified as Top Secret.

(ii) Contractor actions that result in a breakdown of the safeguards and security management system that can reasonably be expected to result in the loss, compromise, or unauthorized disclosure of Restricted Data, or other classified information which is classified as Top Secret.

(iii) Failure to implement corrective actions stemming from the loss, compromise, or unauthorized disclosure of Restricted Data or other classified information classified as Top Secret.

(2) Second Degree: Performance failures that have been determined, in accordance with applicable DOE regulation or directive, to have actually resulted in, or that can reasonably be expected to result in, serious damage to the national security. The following performance failures or performance failures of similar import will be considered second degree:

(i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating risk of, loss,

compromise, or unauthorized disclosure of Restricted Data or other classified information which is classified as Secret.

(ii) Contractor actions that result in a breakdown of the safeguards and security management system that can reasonably be expected to result in the loss, compromise, or unauthorized disclosure of Restricted Data, or other classified information which is classified as Secret.

(iii) Failure to promptly report the loss, compromise, or unauthorized disclosure of Restricted Data or other classified information regardless of classification.

(iv) Failure to implement corrective actions stemming from the loss, compromise, or unauthorized disclosure of Restricted Data or other classified information classified as Secret.

(3) Third Degree: Performance failures that have been determined, in accordance with applicable DOE regulation or directive, to have actually resulted in, or that can reasonably be expected to result in, undue risk to the common defense and security. In addition, this category includes performance failures that result from a lack of Contractor management and/or employee attention to the proper safeguarding of Restricted Data and other classified information. These performance failures may be indicators of future, more severe performance failures and/or conditions, and if identified and corrected early would prevent serious incidents. The following performance failures or performance failures of similar import will be considered third degree:

(i) Non-compliance with applicable laws, regulations, and DOE directives actually resulting in, or creating risk of, loss, compromise, or unauthorized disclosure of Restricted Data or other classified information which is classified as Confidential.

(ii) Failure to promptly report alleged or suspected violations of laws, regulations, or directives pertaining to the safeguarding of Restricted Data or other classified information.

(iii) Failure to identify or execute corrective actions to mitigate or eliminate identified vulnerabilities and reduce residual risk relating to the protection of Restricted Data or other classified information in accordance with the Contractor's Safeguards and Security Plan or other security plan, as applicable.

(iv) Contractor actions that result in performance failures which unto themselves pose minor risk, but when viewed in the aggregate

indicate degradation in the integrity of the Contractor's safeguards and security management system relating to the protection of Restricted Data and other classified information.

(End of Clause)

H-30 Contractor Compensation, Benefits and Pension

(a) The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system including a compensation system self-assessment plan consistent with 48 CFR 31.205-6, "Compensation for personal services." The Contractor's compensation system and methods shall be fully documented, consistently applied, and acceptable to DOE in accordance with 48 CFR 31.205-6 as supplemented by DEAR 970.3102-05-6. Costs incurred under a compensation program will generally be deemed reasonable if they are in accordance with the program accepted by the Contracting Officer, consistent with applicable cost principles, and conform to Contracting Officer approved applicable industry benchmarks. Further advance understandings on allowable costs are detailed in the attached Appendix A of this Contract.

(b) The Contractor shall submit the following to the Contracting Officer for a determination of cost reimbursement under the Contract:

(1) A description of the compensation program supported by the relevant data comparing it to other industry or relevant benchmark programs.

(2) Compensation System self-assessment and compensation system existing baseline package for DOE validation.

(3) Proposed compensation design changes that increase cost must be approved by the Contracting Officer prior to implementation.

(4) Annual Compensation Increase Plan (CIP).

(5) Individual compensation actions, as required in the Contract including initial and proposed changes to base salary and or payments under an Executive Incentive Compensation Plan submitted on the Application for Contractor Compensation Approval, DOE F 3220.5.

(6) Any proposed establishment of an incentive compensation plan.

(c) The Contractor shall provide the Contracting Officer with the following reports:

(1) Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special

adjustments, and structure movements for each pay structure showing actual against approved amounts.

(2) At the time of Contract award and upon any change thereafter, a list of the top five most highly compensated executives and their salaries.

(3) Annual Report of Contractor Expenditures for Employee Supplemental Compensation through the Department Workforce Information System (WFIS), compensation and benefits module.

Part I - Benefit Programs

The Contractor shall implement an employee benefits program that supports at a reasonable cost the effective recruitment and retention of highly skilled workforce at the Department facility. No presumption of allowability will exist when the Contractor implements changes to its existing employee benefits program until the Contracting Officer makes a determination of cost reimbursement for reasonable changes to the program.

(a) Submit to the Contracting Officer for a determination of cost reimbursement a periodic evaluation of the Contractors Employee Benefits Program based on two professionally recognized performance measures:

(1) An Employee Benefits Value Study (ben-val) Measure every two years which is an actuarial study of the relative value (RV) of the benefits programs offered by the Contractor measured against the RV of benefit programs offered by comparator companies approved by the Contracting Officer. To the extent that the value study does not address post-retirement benefits (PRB) other than pension, the Contractor shall provide separate PRB cost and plan design data comparison with external benchmarks for nationally recognized and Contracting Officer approved survey sources.

(2) An Employee Benefits Cost Survey Comparison (cost survey) Method every year that analyzes the Contractor's employee benefits cost on a per capita basis per full time equivalent employee and compares it with the cost reported by the U.S. Chamber of Commerce (CoC) Annual Employee Benefits Cost Survey or other Contracting Officer approved broad based national survey.

(b) When net benefit value and/or per capita cost exceed the comparator group by more than 5 percent, submit corrective action plans to achieve a net benefit value and per capita cost not to exceed the comparator group by more than 5 percent.

(c) When required by the Contracting Officer submit an analysis of the specific plan costs that are above the per capita cost range and a corrective action plan to achieve conformance with a Contracting Officer directed per capita cost range.

(d) Implement corrective action plans determined to be reimbursable by the Contracting Officer to align employee benefit programs with the target in paragraph (b) of this Part I.

(e) Post Retirement Life, Medical and Other Benefit Obligations Upon Contract Termination. Employer costs for retiree medical benefits will be prorated based only on service under this Contract.

(1) Subject to the availability of appropriated funds obligated to this Contract, if the Contract terminates, the Department of Energy will make available to the Contractor in a timely manner sufficient funds so that the Contractor has no out-of-pocket expenditures from corporate funds to cover all liabilities incurred under this Contract related to Contracting Officer-approved employee welfare benefit plans (including but not limited to medical, life, and workers' compensation). If so requested by the DOE at the time of Contract termination or expiration, the Contractor will continue as the sponsor of these plans until all liabilities of such plans are discharged.

(2) If the Contract terminates, the Department of Energy may make use of a third party such as an insurer to guarantee benefit payments.

Part II – Leave of Absence Without Pay

An employee may be granted a leave of absence without pay for up to three years by the Contractor provided the absence will not interfere with the Contractor's operations or create any conflict of interest. Continuation of benefits during leave of absence without pay will be administered according to the Contractor's leave of absence policy and any applicable Plan amendments as subject to ERISA.

(a) Granting of company service for a period of leave and restoration of vacation eligibility immediately upon return to work may be provided for employees who return to work from leaves including, but not limited to:

(1) Leaves granted when it is in the Government's interest to make an employee's expertise or services available to DOE, another DOE Contractor, another government agency (e.g. Department of Homeland Security, Department Of Defense, Centers for Disease Control, or National Aeronautics and Space Administration), colleges or universities, or other work-related activities such as the International Atomic Energy Agency.

(2) Entrepreneurial leave granted to accelerate technology start up based on DOE developed technologies.

(b) Continuation of company service credit and/or immediate restoration of vacation upon return to work for any leave without pay other than those listed above require DOE approval if the leave exceeds 180 days.

(c) The Contractor shall submit an annual report to the Contracting Officer identifying all employees on leave of absence without pay under this provision, the organization they are supporting, the location of assignment and length of leave of absence.

Part III Group Pension Plans

Staff members of the Contractor's Pacific Northwest National Laboratories (PNNL) assigned to or performing work under the Contract may participate in the Contractor's Group Pension Plans (the Plans) applicable to PNNL in accordance with the terms of the Plans. The Group Pension Plans are trusteed plans described in items (a) and (b) below and with respect to the Plans, the Contractor and DOE agree as follows:

(a) "Pension Plan of Pacific Northwest Laboratories, Battelle Memorial Institute," [PNNL Plan] (applicable to non-bargaining unit employees) effective July 1, 1987, and as the foregoing PNNL Plan may be amended from time to time by the Contractor's Board of Trustees; and as determined to be reimbursable by the DOE Contracting Officer.

(b) "Hanford Contractors Multi Employer Defined Benefit Pension Plan for HAMTC Represented Employees," [HAMTC Plan] (applicable to bargaining unit employees) effective April 1, 1987; and, as the foregoing HAMTC Plan may be amended from time to time by the Plan Administrator in cooperation with the Administrative Committee; as determined to be reimbursable by the DOE Contracting Officer.

(c) The PNNL Plan and disposition, payment and transfer of Plan assets shall satisfy the requirements of the Employee Retirement Income Security Act (ERISA), the Internal Revenue Service (IRS), and the Department of Labor and any other applicable Federal statutes and regulations.

(d) All costs related to the PNNL Plan required to meet the requirements of this Article including administrative costs incurred by the Contractor and applicable to the work under the Contract and employer contributions related to work performed under this Contract will be allowable costs. To the extent practicable all non-settler administrative costs shall be charged to the pension plan rather than to the operating budget to the maximum extent permitted by Department of Labor regulations. The employer contributions will be allowable at rates determined for

PNNL based on actuarial valuations performed by the actuary appointed by Battelle, using the entry age normal cost method of funding.

(e) The Contractor will provide DOE with annual actuarial valuation reports and IRS Form 5500 Reports. These reports shall contain information regarding PNNL Plan assets and liabilities. Said information shall be based on the valuation assumptions and calculation methods which are then in use for the PNNL Plan. The actuarial valuation reports shall be provided to DOE within thirty (30) days after preparation or nine (9) months following the opening of a plan year for which funding requirements are calculated, whichever is earlier.

(f) Unless otherwise agreed, the Contractor will obtain an actuarial valuation of the PNNL Plan as of the effective date of Contract termination or expiration. The cost of such valuation will be allocated in accordance with then current procedures for allocating actuarial valuation costs.

(g) Procedures for Annual Accounting of Employer Pension Contributions for PNNL Plan

(1) For each plan year, the Contractor will provide to DOE an accounting of assets associated with employer pension contributions with respect to the Contract work of PNNL and the Non-Contract work of PNNL as follows:

(i) accrual basis market value of such associated assets at the beginning of the PNNL Plan year;

(ii) the dollar amount of employer pension contributions made during the plan year allocated, on the basis of the cost of non-bargaining direct staff labor during such year, to the Contract work and the Non-Contract work;

(iii) the dollar amount of investment income on such associated assets based on the yield rate determined on the dollar-weighted market value basis as shown in actuarial reports of the Plan;

(iv) the dollar amount of related benefits and/or assets disbursed to terminated and retired PNNL staff members and beneficiaries; such related benefits and/or assets will be allocated on the basis of the historical relationship of non-bargaining direct staff labor to the Contract work of PNNL staff members and the other work of PNNL staff members; and

(v) accrual basis market value of associated assets at the end of the plan year [(i) + (ii) + (iii) - (iv) = (v)].

(2) The first accounting under this PNNL Plan shall be as of June 30, 1987, and shall reflect the removal of those assets and liabilities transferred to the HAMTC Plan effective April 1, 1987, from total PNNL pension assets accounted for in previous reports covering the periods from January 1, 1965 on. For the Plan year ending June 30, 1987, and annually thereafter, the Contractor will provide to DOE an accounting of assets as described in Part III, paragraph (g)(1) above. Such reports shall be provided to DOE within thirty (30) days after preparation but no more than nine (9) months following the opening of the plan year for which funding requirements are calculated. The final accounting period shall end with the effective date of Contract termination.

(h) References to termination of the Contract in this Article are intended to cover the circumstances created when the contractual relationship between DOE and the Contractor is terminated in whole or in part by formal action of DOE in accordance with the Clause of the Contract entitled "Termination". It is not intended that the provisions of this Article pertaining to Contract termination be implemented in cases when reduced funding levels or cessation of individual projects or programs require work force reductions but do not affect the continuing contractual relationship under the Contract.

(i) Procedures for Determination of Contract Service Pension Assets and Liabilities Upon Contract Termination.

(1) Contract Service Assets. Contract Service Assets shall include all assets attributable to employer contributions with respect to the Contract work of PNNL, as determined in this Part III, paragraphs (g)(1) and (g)(2) above. Such assets shall also include applicable employer contributions due the fund but not paid as of the effective date of termination.

(2) Non-Contract Service Assets. Non-Contract Service Assets shall include all assets attributable to employer contributions with respect to the Non-Contract work of PNNL as determined in this Part III, paragraphs (g)(1) and (g)(2) above. Such assets shall also include applicable employer contributions due the fund but not paid as of the effective date of termination.

(3) Liabilities for Present and Future Benefits

(i) Pensioners, Beneficiaries, and Terminated Vested Members

The liability for benefits for PNNL pensioners, beneficiaries, and terminated vested members who separated prior to the date of Contract termination and whose separation was not directly caused by such termination, shall be equal to the present value of such benefits as of the effective date of termination of the Contract. Such present value shall be calculated using GATT rates for interest and mortality as appropriate for the PNNL Plan, consistent with the then current actuarial valuation, or as mutually agreeable to the DOE and the Contractor based on circumstances at the time.

(ii) Active Participants Retained by Battelle

For the active participants retained by Battelle, the past service liability shall be calculated as of the effective date of Contract termination using the PNNL Plan actuarial assumptions, actuarial cost method, and benefits as then in effect. The calculations shall be completed in a manner comparable to those for an ongoing plan.

(iii) Active Participants Not Retained by Battelle in the Event There Is No Successor Pension Plan

If there is no successor pension plan, liabilities for vested accrued benefits of PNNL Participants whose active membership is terminated as a result of Contract termination, including benefits becoming vested by reason of such termination under applicable PNNL Plan provisions, law and/or IRS regulations, shall be equal to the present value of such vested benefits calculated using the GATT rates for interest and mortality, as appropriate for the PNNL Plan consistent with the then current actuarial valuation, or as mutually agreeable to the DOE and the Contractor based on circumstances at the time.

(iv) Active Participants Not Retained by Battelle in the Event There is a Successor Pension Plan

For the Participants covered by a successor pension plan, the past service liability shall be calculated as of the effective date of Contract termination using the Plan actuarial assumptions, actuarial cost method, and benefits as then in effect. The calculations shall be completed in a manner comparable to those for an ongoing pension plan.

(j) Disposition of Contract Service Assets and Liabilities

(1) The liabilities and Contract Service Assets associated with such liabilities for pensioners, beneficiaries, and terminated vested members as described in this Part III, paragraph (i)(3)(i) shall be retained by Battelle and shall include an amount actuarially determined to cover reasonable administrative service costs provided, however, that if requested by DOE to do so, Battelle shall solicit proposals from at least three insurance carriers for a single premium purchase non-participating contract for assumption of liabilities for such participants. The award shall be based on mutual agreement between the DOE and the Contractor, and shall be consistent with fiduciary standards related to such transactions. In such case, retained assets shall equal the cost of such insurance contracts.

(2) The remainder of Contract Service Assets, after the retention described in this Part III, paragraph (j)(1) above, shall be divided into two parts as follows:

(i) One part equals such remainder of Contract Service Assets multiplied by the ratio R / (R+S) where:

R = past service liability for active Participants retained by Battelle calculated as described in this Part III, paragraph (i)(3)(ii). And

S = past service liability for active Participants not retained by Battelle calculated as described in this Part III, Paragraph (i)(3)(iv).

This part of Contract Service Assets will be retained by Battelle.

(ii) The other part of Contract Service Assets equals the total of Contract Service Assets less the amount retained by Battelle under Part III, paragraph (j)(1) and paragraph (j)(2)(i) above.

(A) If there is a successor plan, then this part shall be transferred to, and associated liabilities calculated in accordance with this Part III, paragraph (i)(3)(iv) shall be assumed by, the successor plan.

(B) If there is no successor plan, then

1. this part and associated liabilities calculated in accordance with this Part III, paragraph (i)(3)(iii) will be retained by Battelle;

2. if such assets exceed the associated liabilities (including the option of purchasing annuities to cover the liabilities) and the PNNL Plan terminates, Battelle will pay to DOE from Plan assets any excess amount remaining after plan termination costs, penalties, and taxes resulting from such termination of the Plan; and

3. if Plan assets remaining after the costs, penalties and taxes resulting from termination of the Plan are not sufficient to cover the liabilities in accordance with this Part III, paragraph (i)(3)(iii) then DOE will pay to Battelle the deficiency; provided, however, payment by DOE shall be subject to the availability of appropriated funds which may be used for such purposes.

(C) If there is no successor plan, then

1. this part and associated liabilities calculated in accordance with this Part III, paragraph (i)(3)(iii) will be retained by Battelle; and

2. if the PNNL Plan does not terminate, then DOE and Battelle shall meet to determine an equitable disposition of the PNNL Plan.

(k) <u>Disposition of Non-Contract Service Assets and Liabilities</u>

(1) The liabilities and Non-Contract Service Assets associated with such liabilities for pensioners, beneficiaries and terminated vested members as described in this Part III, paragraph (i)(3)(i) shall be retained by Battelle.

(2) The remainder of Non-Contract Service Assets, after the retention described in paragraph (k)(1) above, shall be divided into two parts as follows:

(i) One part equals such Non-Contract Service Assets multiplied by the ratio T / (T+W) where:

T = past service liability for active Participants retained by Battelle calculated as described in paragraph (i)(3)(ii); and

W = past service liability for active Participants not retained by Battelle calculated as described in paragraph (i)(3)(iv).

This part of Non-Contract Service Assets will be retained by Battelle.

(ii) The other part of Non-Contract Service Assets equals the total of Non-Contract Service Assets less the amount retained by Battelle under paragraph (k)(1) and paragraph (k)(2)(i) above.

(A) If there is a successor plan, then this part shall be transferred to, and associated liabilities calculated in accordance with paragraph (i)(3)(iv) shall be assumed by, the successor plan.

(B) If there is no successor plan, then this part and associated liabilities calculated in accordance with paragraph (i)(3)(iii) will be retained by Battelle. Any excess or shortage of Non-Contract Service Assets in relation to such liabilities will be retained or absorbed by Battelle.

(l) Financial Adjustments

(1) If within six (6) months after the termination of the Contract, a retained staff member of Battelle is transferred to the successor contractor, or a transferred staff member is returned to Battelle, adjustments will be made to Contract and Non-Contract Service Assets as if the transfer had been effective on the date of Contract termination, and appropriate payments or transfers of assets will be made.

(2) If at the end of twenty-four (24) months following Contract termination, the terminations of retained staff members during this period exceed the numbers expected in the actuarial assumptions of the Plan at Contract termination, liabilities for vested benefits of the excess terminated staff members will be calculated as the present value of benefits as of the date the staff member terminated; such present value shall be calculated using the GATT rates for interest and mortality, as appropriate for the PNNL Plan consistent with the then current actuarial valuation, or as mutually agreeable to the DOE and the Contractor based on circumstances at the time. This value will be substituted for the value previously established for the retained staff members; adjustments will be made to Contract and Non-Contract Assets; and appropriate payments or transfers of assets will be made.

(3) The procedures outlined above in paragraph (l)(2) shall also be applied to all staff members who transfer to a successor contractor; adjustments shall be made as above and appropriate payments will be made.

(m) Payments and Transfers of Assets

(1) Payments by either party for excesses or shortages of Contract Service Assets as described in paragraph (j)(2)(ii) shall be in U.S. currency and completed within thirty-six (36) months of the effective date of Contract termination or such longer period as may be mutually agreed upon. Both parties shall have the option of making payments in one lump sum or in any series of installments at a rate of return mutually agreeable to the parties.

(2) If transfers of Plan assets are made to a successor plan as described in paragraph (j)(2)(ii) and paragraph (k)(2)(ii) in the form of investment holdings, such holdings shall include cash, equity securities, and fixed income securities. Such assets shall be allocated on a pro rata basis, with the prorating for fixed income assets based on rating and sector classification. Transfers shall include interest earnings on applicable assets from the effective date of termination to the date of transfer as calculated in paragraph (m)(1) above.

(3) Battelle will transfer Plan assets at a rate at least sufficient to meet the cash flow requirements of transferred staff members who go into benefit status after the effective date of Contract termination.

(n) The Contractor will take no unilateral action concerning the termination, merger, spin-off, or other action affecting the status of the Plan as covering only Non-Bargaining employees of the Pacific Northwest National Laboratory without the approval of the DOE. In the event of a Plan termination, the costs and disposition of Plan assets and liabilities shall be as set out in paragraphs (i) and (j) above, or as mutually agreeable to the DOE and the Contractor based on circumstances at the time.

(o) With respect to the Multi-Employer Pension Plan for HAMTC Represented Employees (Part III, paragraph (b) above), the Contractor and DOE agree that effective April 1, 1987, pursuant to a collective bargaining agreement, the Contractor became a participating employer in the Hanford Contractor Multi-Employer Pension Plan for HAMTC Represented Employees. All assets and liabilities of the "Employees Retirement Plan of Battelle Memorial Institute" were transferred to and merged with the said Multi-Employer Plan.

(p) Costs incurred by the Contractor for contributions required by the HAMTC Plan are allowable to the extent applicable to the work under the Contract.

(q) The HAMTC Plan fund, not the Contractor, shall be liable for costs incurred in the course of administration (actuary fees, reports, and similar expenses); provided, however, that costs for employee communications, sign up and termination, payroll, and similar expenses are allowable as normal operating

expenses to the extent applicable to work under the Contract.

(r) Upon expiration or termination of the Contract, all liability of the Contractor with respect to the HAMTC Plan shall cease. The Contractor shall have no claim to any HAMTC Plan assets in excess of HAMTC Plan liabilities, nor shall the Contractor be required to fund any excess of HAMTC Plan liabilities over HAMTC Plan assets. DOE agrees that all costs, including cost of defense, from any withdrawal liability arising under federal law by reason of the Contractor's withdrawal from the Multi-Employer Plan shall be an allowable cost under the Contract subject to the provisions of paragraph (j) of the clause entitled "Payments and Advances".

(s) The Contractor will take no action concerning the termination, merger, spin-off, or other action affecting the status of the plan as covering only Bargaining Unit employees of the Pacific Northwest National Laboratory.

(t) With respect to all Plans, unless otherwise required by federal law or resulting from the collective bargaining process, no amendment to any of the Plans shall result in allowable costs under this Contract if the adoption date of such amendment is later than 12 months before the termination or expiration date of the Contract and the termination or expiration of the Contract is due to the act or failure to act of the Contractor, or the failure of the Contractor to bargain in good faith with the government for an extension of the Contract.

(u) The aggregate annual contribution to any Plan shall range from the minimum specified by Internal Revenue Code (IRC) Section 412(b) to the amount necessary to fully fund the year end expected current liability. However, the aggregate annual contribution to a Plan shall be no less than the minimum specified by IRC Section 412(b) nor greater than the tax-deductible limit specified by IRC Section 404.

Part IV - Group Savings Plans

The Contractor maintains or is a participating employer in savings plans for eligible non-bargaining employees. In addition, the Contractor is a participating employer in a multi-employer plan for bargaining unit employees. The savings plans are trusteed plans described in the following two documents entitled "Battelle Employees' Savings Plan", and "Hanford Contractors Multi-Employer Savings Plan for HAMTC Represented Employees". The plans must be established and maintained as qualified defined contribution plans under the regulations of the Internal Revenue Service. The Plan and Trust documents and any amendments thereto which effect substantive changes or increase costs are subject to the approval of the Contracting Officer. With respect to the Plans, the parties agree as follows:

(a) Costs of employer matching contributions incurred and accrued under the terms of the Plans are allowable to the extent applicable to Contract work. To the extent permitted by law or regulation, the Plans funds, not the Contractor, shall be liable

for the costs of administration.

(b) The Contractor will provide the Contracting Officer with annual accounting reports within eight months after the close of a Plan year. A copy of IRS Form 5500, together with any supplemental or supporting documents submitted therewith, will be provided to DOE each year when prepared by the Contractor, which may be provided in lieu of the accounting report required by this provision.

(c) Employee forfeitures of accrued benefits shall be in accordance with the terms of the Plans and such forfeitures shall be used to reduce Contractor contributions made on behalf of remaining participating employees.

(d) In the event of Contract expiration or termination, the Contractor, if requested by DOE to do so, will transfer assets and liabilities to a replacement contractor's plan.

(e) In the event of Plan terminations, vest immediately one hundred percent in the Plan participants' individual accounts.

(f) Upon expiration or termination of the Contract, all liability of the Contractor with respect to the Hanford Contractors Multi-Employer Savings Plan for HAMTC Represented Employees shall cease. DOE agrees that all costs, including cost of defense from any withdrawal liability arising under federal law by reason of the Contractor's withdrawal from the Multi-Employer Plan shall be an allowable cost under the Contract, subject to the provisions of paragraph (j) of the clause entitled "Payments and Advances".

(g) The Contractor will take no action concerning termination, merger, spin-off, or other action affecting the status of the Plans without the approval of the DOE.

(End of Clause)

H-31 Determining Total Available Mission Stretch Goal(s) Incentive Fee and Fee Earned

(a) Mission Stretch Goal(s) Fee

In addition to the yearly performance fee available in accordance with the special clause entitled "Determining Total Available Performance Fee and Fee Earned," the Contractor may earn additional "Mission Stretch Goal(s)" incentive fee based on the successful completion of the Mission Stretch Goal(s) identified within Section J, Appendix H of the this Contract. The Parties have agreed that a total available Mission Stretch Goal(s) incentive fee of $3,000,000 shall be available for the Contract period and is to be 100% at risk.

(b) Determination of Total Available Mission Stretch Goal(s) Incentive Fee Amount Earned.

The Government shall, at the conclusion of the specified Mission Stretch Goal(s) evaluation period or other timeframe as may be agreed upon between the Parties, evaluate and/or validate the Contractor's performance in accordance with the clause in Section I entitled "Total Available Fee: Base Fee Amount and Performance Fee Amount." The evaluation of the Contractor Mission Stretch Goal(s) and amount of Mission Stretch Goal(s) incentive fee earned shall be in accordance with Section J, Appendix H, "Mission Stretch Goal(s) Performance Evaluation and Measurement Plan."

(c) Nothing in this clause shall diminish or remove any rights afforded the Government regarding Contract termination as may be set forth elsewhere within this Contract. In the event of such termination, whether for the convenience of the Government or default by the Contractor, the Contractor shall be entitled to any Mission Stretch Goal(s) Incentive Fee Amount provisionally earned, as determined by the Government.

(End of Clause)

H-32 Other Advance Understandings

(a) To facilitate continuity of performance and Contract administration, all agreements, memorandums of understanding, and contractual assumptions which have been appropriately agreed to in writing by both Parties prior to this Contract extension will continue in effect according to the terms thereof unless they have been superceded or, if they are in conflict with any other terms and conditions of this Contract extension.

(b) For purposes of the clause in this Contract titled "Access to and Ownership of Records, it is understood and agreed that the Contractor-owned legal records that are subject to an attorney-client privilege or an attorney-work-product privilege require special handling to preserve these privileges. Therefore, the Parties agree that inspection, copying, or audit of any such records will only be conducted by DOE Counsel or its designees.

(c) The initial submittal of the "Assurance Letter" required by the clause entitled "Management Controls (Dec 2000) (DEVIATION)" shall be no later than November 30, 2004. Unless changed by mutual agreement, subsequent "Assurance Letters" shall be submitted annually by the last day of November.

(End of Clause)

H-33 Open Competition and Labor Relations under Management and Operating and Other Major Facilities Contracts (Dec 2002) (AL 2002-08)

"Labor organization," as used in this clause, shall have the same meaning it has in 42 U.S.C. 2000e(d).

(a) Unless acting in the capacity of a constructor on a particular project, the Contractor shall not-

(1) Require bidders, offerors, Contractors, or subcontractors to enter into or adhere to nor prohibit those Parties from entering into or adhering to agreements with one or more labor organizations, i.e., project labor agreements, that apply to construction project(s) relating to this Contract; or

(2) Otherwise discriminate against bidders, offerors, Contractors, or subcontractors for refusing to become or to remain signatories or to otherwise adhere to project labor agreements for construction project(s) relating to this Contract.

(b) When the Contractor is acting in the capacity of a constructor, i.e., performing a substantial portion of the construction with its own forces, it may use its discretion to require bidders, offerors, Contractors, or subcontractors to enter into a project labor agreement that the Contractor has negotiated for that individual project.

(c) Nothing in this clause shall limit the right of bidders, offerors, Contractors, or subcontractors to voluntarily enter into project labor agreements.

(End of Clause)

Part II – Contract Clauses

Section I

Contract Clauses

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I–1 52.202-1 Definitions (Dec 2001) Modified by DEAR 902-200 (Mar 2002)

(a) “Agency head” or “head of agency” means: (i) the Secretary; (ii) Deputy Secretary; (iii) Under Secretaries of the Department of Energy and (iv) the Chairman, Federal Energy Regulatory Commission.

(b) "Commercial component" means any component that is a commercial item.

(c) "Commercial item" means --

(1) Any item, other than real property, that is of a type customarily used by the general public or by non-Governmental entities for purposes other than Governmental purposes, and that --

(i) Has been sold, leased, or licensed to the general public; or

(ii) Has been offered for sale, lease, or license to the general public;

(2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;

(3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for --

(i) Modifications of a type customarily available in the commercial marketplace; or

(ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. "Minor" modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;

(4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;

(5) Installation services, maintenance services, repair services, training services, and other services if--

(i) Such services are procured for support of an item referred to in paragraph (c)(1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and

(ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;

(6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed. For purposes of these services--

(i) “Catalog price” means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) “Market prices” means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in subparagraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or

(8) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.

(d) "Component" means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

(e) "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(f) "Nondevelopmental item" means --

(1) Any previously developed item of supply used exclusively for Governmental purposes by a Federal agency, a State or local Government, or a foreign Government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

(g) Except as otherwise provided in this Contract, the term "subcontracts" includes, but is not limited to, purchase orders and changes and modifications to purchase orders under this Contract.

(h) The term “DOE” means the United States Department of Energy; “FERC” means the Federal Energy Regulatory Commission; and “NNSA” means the National Nuclear Security Administration.

(i) The “Senior Procurement Executive, DOE” is the Director, Office of Procurement and Assistance Management; the “Senior Procurement Executive, NNSA” is the Administrator for Nuclear Security, NNSA; and the “Senior Procurement Executive, FERC” is the Chairman, Federal Energy Regulatory Commission.

(j) “Contractor” means Battelle Memorial Institute.

(k) “Laboratory” means the Pacific Northwest National Laboratory (PNNL).

(l) “Contractor’s Managerial Personnel” means the Contractor’s officers; directors; Laboratory Director; Deputy Laboratory Directors; Associate Laboratory Directors; Chief Financial Officer; General Counsel; Director of Economic Development & Communications; Director of Environment, Safety, Health & Quality; Director of Human Resources; Director of Audit & Oversight; and Director of Facilities & Operations; or equivalent positions, and anyone acting in any of the above-named positions pursuant to a written designation.

(End of Clause)

I–2 52.203-3 Gratuities (Apr 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative --

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this Contract is terminated under paragraph (a) of this clause, the Government is entitled --

(1) To pursue the same remedies as in a breach of the Contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this Contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

(End of Clause)

I–3 52.203-5 Covenant Against Contingent Fees (Apr 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this Contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this Contract without liability or, in its discretion, to deduct from the Contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a Contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a Contractor and subject to the Contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of Clause)

I–4 52.203-6 Restrictions on Subcontractor Sales to the Government (Jul 1995)

(a) Except as provided in (b) of this clause, the Contractor shall not enter into any agreement with an actual or prospective Subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such Subcontractors directly to the Government of any item or process (including computer software) made or furnished by the Subcontractor under this Contract or under any follow-on production contract.

(b) The prohibition in (a) of this clause does not preclude the Contractor from asserting rights that are otherwise authorized by law or regulation.

(c) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c), in all subcontracts under this Contract which exceed $100,000.

(End of Clause)

I–5 52.203-7 Anti-Kickback Procedures (Jul 1995)

(a) *Definitions.*

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, Subcontractor, or Subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor" as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or Subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause,

(1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and

(2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier Subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a Subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from --

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a Subcontractor to a prime Contractor or higher tier Subcontractor.

(c)

(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may

(i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or

(ii) direct that the Prime Contractor withhold from sums owed a Subcontractor under the prime contract the amount of the kickback. The Contracting Officer may order that monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed $100,000.

(End of Clause)

I–6 52.203-8 Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (Jan 1997)

a) If the Government receives information that a Contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may --

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which --

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either --

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsection 27(e)(1) of the Act.

(b) If the Government rescinds the Contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the Contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this Contract.

(End of Clause)

I–7 52.203-10 Price or Fee Adjustment for Illegal or Improper Activity (Jan 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27(a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be --

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts --

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may --

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime Contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its Subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of Clause)

I–8 52.203-12 Limitation on Payments to Influence Certain Federal Transactions (Jun 1997)

(a) *Definitions.*

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C.450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local Government," as used in this clause, means a unit of Government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a Governmental duty, including a local public authority, a special district, an intrastate district, a council of Governments, a sponsor group representative organization, and any other instrumentality of a local Government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local Government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all Subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or

employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having Governmental duties and powers.

(b) *Prohibitions*.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action --

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) *Professional and technical services*.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of --

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or

receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal

services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) *Disclosure*.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes --

(i) A cumulative increase of $25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding $100,000 under the Federal contract.

(4) All Subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the Subcontractor. Each Subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) *Agreement.* The Contractor agrees not to make any payment prohibited by this clause.

(e) *Penalties*.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C.1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their Subcontractors in the certification and disclosure form.

(f) *Cost allowability*. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(End of Clause)

I–9 52.204-4 Printed or Copied Double-Sided on Recycled Paper (Aug 2000)

(a) *Definitions*. As used in this clause-

"Postconsumer material" means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of "recovered material." For paper and paper products, postconsumer material means "postconsumer fiber" defined by the U.S. Environmental Protection Agency (EPA) as-

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old

newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived form printers' over-runs, converters' scrap, and over-issue publications.

"Printed or copied double-sided" means printing or reproducing a document so that information is on both sides of a sheet of paper.

"Recovered material," for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as "recovered fiber" and means the following materials:

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as-

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.

(b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.

(c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white woven envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no

less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

(End of Clause)

I–10 52.208-8 Required Sources for Helium and Helium Usage Data (Apr 2002)

(a) *Definitions.*

"Bureau of Land Management," as used in this clause, means the Department of the Interior, Bureau of Land Management, Amarillo Field Office, Helium Operations, located at 801 South Fillmore Street, Suite 500, Amarillo, TX 79101-3545.

"Federal helium supplier" means a private helium vendor that has an in-kind crude helium sales contract with the Bureau of Land Management (BLM) and that is on the BLM Amarillo Field Office's Authorized List of Federal Helium Suppliers available via the Internet at http://www.nm.blm.gov/www/amfo/amfo_home.html .

"Major helium requirement" means an estimated refined helium requirement greater than 200,000 standard cubic feet (scf) (measured at 14.7 pounds per square inch absolute pressure and 70 degrees Fahrenheit temperature) of gaseous helium or 7510 liters of liquid helium delivered to a helium use location per year.

(b) *Requirements* --

(1) Contractors must purchase major helium requirements from Federal helium suppliers, to the extent that supplies are available.

(2) The Contractor shall provide to the Contracting Officer the following data within 10 days after the Contractor or Subcontractor receives a delivery of helium from a Federal helium supplier --

(i) The name of the supplier;

(ii) The amount of helium purchased;

(iii) The delivery date(s); and

(iv) The location where the helium was used.

(c) *Subcontracts* --The Contractor shall insert this clause, including this paragraph (c), in any subcontract or order that involves a major helium requirement.

(End of Clause)

I–11 52.209-6 Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended or Proposed for Debarment (Jul 1995)

(a) The Government suspends or debars Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of $25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

(b) The Contractor shall require each proposed first-tier Subcontractor, whose subcontract will exceed $25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the Subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs). The notice must include the following:

(1) The name of the Subcontractor.

(2) The Contractor's knowledge of the reasons for the Subcontractor being on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(3) The compelling reason(s) for doing business with the Subcontractor notwithstanding its inclusion on the List of Parties Excluded From Federal Procurement and Nonprocurement Programs.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such Subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(End of Clause)

I–12 52.211-5 Material Requirements (Aug 2000)

(a) *Definitions.* As used in this clause --

"New" means composed of previously unused components, whether manufactured from virgin material, recovered material in the form of raw material, or materials and by-products generated from, and reused within, an original manufacturing process; *provided* that the supplies meet contract requirements, including but not limited to, performance, reliability, and life expectancy.

"Reconditioned" means restored to the original normal operating condition by readjustments and material replacement.

"Recovered material" means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

"Remanufactured" means factory rebuilt to original specifications.

"Virgin material" means--

(1) Previously unused raw material, including previously unused copper, aluminum, lead, zinc, iron, other metal or metal ore; or

(2) Any undeveloped resource that is, or with new technology will become, a source of raw materials.

(b) Unless this contract otherwise requires virgin material or supplies composed of or manufactured from virgin material, the Contractor shall provide supplies that are new, reconditioned, or remanufactured, as defined in this clause.

(c) A proposal to provide unused former Government surplus property shall include a complete description of the material, the quantity, the name of the Government agency from which acquired, and the date of acquisition.

(d) A proposal to provide used, reconditioned, or remanufactured supplies shall include a detailed description of such supplies and shall be submitted to the Contracting Officer for approval.

(e) Used, reconditioned, or remanufactured supplies, or unused former Government surplus property, may be used in contract performance if the Contractor has proposed the use of such supplies, and the Contracting Officer has authorized their use.

(End of Clause)

I–13 52.215-8 Order of Precedence -- Uniform Contract Format (Oct 1997)

Any inconsistency in this solicitation or contract shall be resolved by giving precedence in the following order:

(a) The Schedule (excluding the specifications).

(b) Representations and other instructions.

(c) Contract clauses.

(d) Other documents, exhibits, and attachments.

(e) The specifications.

(End of Clause)

I–14 52.215-12 Subcontractor Cost or Pricing Data (Oct 1997)

(a) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the Subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.

(b) The Contractor shall require the Subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (a) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(c) In each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4, when entered into, the Contractor shall insert either --

(1) The substance of this clause, including this paragraph (c), if paragraph (a) of this clause requires submission of cost or pricing data for the subcontract; or

(2) The substance of the clause at FAR 52.215-13, Subcontractor Cost or Pricing Data -- Modifications.

(End of Clause)

I–15 52.215-13 Subcontractor Cost or Pricing Data – Modifications (Oct 1997)

(a) The requirements of paragraphs (b) and (c) of this clause shall --

(1) Become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4; and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the

Subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.

(c) The Contractor shall require the Subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4 on the date of agreement on price or the date of award, whichever is later.

(End of Clause)

I–16 52.219-8 Utilization of Small Business Concerns (Oct 2000)

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime Contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

(c) *Definitions.* As used in this contract--

"HUBZone small business concern" means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

"Service-disabled veteran-owned small business concern"-

(1) Means a small business concern-

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

"Small disadvantaged business concern" means a small business concern that represents, as part of its offer, that--

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B;

(2) No material change in disadvantaged ownership and control has occurred since its certification;

(3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

"Veteran-owned small business concern" means a small business concern-

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Contractors acting in good faith may rely on written representations by their Subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

(End of clause)

I–17 52.219-9 Small Business Subcontracting Plan (Jan 2002)

(a) This clause does not apply to small business concerns.

(b) *Definitions*. As used in this clause--

"Commercial item" means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

"Commercial plan" means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (*e.g.*, division, plant, or product line).

"Individual contract plan" means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

"Master plan" means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

"Subcontract" means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or Subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting

with small business concerns, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and with women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as Subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of --

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns;

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;

(v) Total dollars planned to be subcontracted to HUBZone small business concerns;

(vi) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vii) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to --

(i) Small business concerns,

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns, and

(v) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (*e.g.*, existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRO-Net as its source list does not relieve a firm of its responsibilities (*e.g.*, outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with --

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns; and

(vi) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all Subcontractors (except small business concerns) that receive subcontracts in excess of $500,000 ($1,000,000 for construction of any public facility) to adopt a plan similar to the plan that complies with the requirements of this clause.

(10) Assurances that the offeror will --

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with the paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.

(iv) Ensure that its Subcontractors agree to submit SF 294 and 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists (e.g., PRO-Net), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than $100,000, indicating --

(A) Whether small business concerns were solicited and if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;

(D) Whether HUBZone small business concerns were solicited and, if not, why not;

(E) Whether small disadvantaged business concerns were solicited and if not, why not;

(F) Whether women-owned small business concerns were solicited and if not, why not; and

(G) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact --

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through --

(A) Workshops, seminars, training, etc., and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each Subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business Subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-

owned small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to Subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided --

(1) The master plan has been approved;

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for Contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for Subcontractors that provide commercial items under a prime contract, whether or not the prime Contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or Subcontractor to comply in good faith with --

(1) The clause of this contract entitled "Utilization of Small Business Concerns;" or

(2) An approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) *Standard Form 294, Subcontracting Report for Individual Contracts*. This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) *Standard Form 295, Summary Subcontract Report*. This report encompasses all the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its Subcontractors a predominant NAICS Industry Subsector and report all awards to that Subcontractor under its predominant NAICS Industry Subsector.

(End of Clause)

I–18 52.219-16 Liquidated Damages Subcontracting Plan (Jan 1999)

(a) "Failure to make a good faith effort to comply with the subcontracting plan", as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled "Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.

(b) Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan. If, at contract completion, or in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in accordance with the clause in this contract entitled "Small Business Subcontracting Plan," the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply, shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal**.**

(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter.

Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.

(d) With respect to commercial plans; the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by that commercial plan.

(e) The Contractor shall have the right of appeal, under the clause in this contract entitled, Disputes, from any final decision of the Contracting Officer.

(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

(End of Clause)

I–19 52.222-1 Notice to the Government of Labor Disputes (Feb 1997)

If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

(End of Clause)

I–20 52.222-3 Convict Labor (Aug 1996)

The Contractor agrees not to employ in the performance of this contract any person undergoing a sentence of imprisonment which has been imposed by any court of a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands. This limitation, however, shall not prohibit the employment by the Contractor in the performance of this contract of persons on parole or probation to work at paid employment during the term of their sentence or persons who have been pardoned or who have served their terms. Nor shall it prohibit the employment by the Contractor in the performance of this contract of persons confined for violation of the laws of any of the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if --

(a)

(1) The worker is paid or is in an approved work training program on a voluntary basis;

(2) Representatives of local union central bodies or similar labor union organizations have been consulted;

(3) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services; and

(4) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and

(b) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

(End of Clause)

I–21 52.222-4 Contract Work Hours and Safety Standards Act -- Overtime Compensation (Sep 2000)

(a) *Overtime requirements*. No Contractor or Subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) *Violation; liability for unpaid wages; liquidated damages*. The responsible Contractor and Subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and Subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of $10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the Contract Work Hours and Safety Standards Act.

(c) *Withholding for unpaid wages and liquidated damages*. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or Subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or Subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.

(d) *Payrolls and basic records.*

(1) The Contractor and its Subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract

during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The Contractor and its Subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or Subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) *Subcontracts*. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts exceeding $100,000 and require Subcontractors to include these provisions in any lower-tier subcontracts. The Contractor shall be responsible for compliance by any Subcontractor or lower-tier Subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

(End of Clause)

I–22 52.222-11 Subcontracts (Labor Standards) (Feb 1988) (DEVIATION)

(a) The Contractor or Subcontractor shall insert in any domestic construction subcontracts the clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act -- Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination -- Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Act Regulations, and Certification of Eligibility, and such other clauses as the Contracting Officer may, by appropriate instructions, require, and also a clause requiring Subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any Subcontractor or lower tier Subcontractor with all the contract clauses cited in this paragraph.

(b)

(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the Subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

(End of Clause)

I–23 52.222-21 Prohibition of Segregated Facilities (Feb 1999)

(a) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between sexes.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in the contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

I–24 52.222-26 Equal Opportunity (Apr 2002)

(a) *Definition.* "United States," as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of $10,000, the Contractor shall comply with paragraphs (b)(1) through (b)(11) of this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment

opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to --

(i) Employment;
(ii) Upgrading;
(iii) Demotion;
(iv) Transfer;
(v) Recruitment or recruitment advertising;
(vi) Layoff or termination;
(vii) Rates of pay or other forms of compensation; and
(viii) Selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the (OFCCP) for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended, in the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of subparagraphs (b)(1) through (11) of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each Subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the Contracting Officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(c) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of Clause)

I–25 52.222-29 Notification of Visa Denial (Feb 1999)

It is a violation of Executive Order 11246, as amended, for a Contractor to refuse to employ any applicant or not to assign any person hired in the United States, on the basis that the individual's race, color, religion, sex, or national origin is not compatible with the policies of the country where the work is to be performed or for whom the work will be performed (41 CFR 60-1.10). The Contractor agrees to notify the U.S. Department of State, Assistant Secretary, Bureau of Political-Military Affairs (PM) 2201 C Street NW, Room 7325, Washington, DC 20520, and the U.S. Department of Labor, Deputy Assistant Secretary for Federal Contract Compliance, when it has knowledge of any

employee or potential employee being denied an entry visa to a country in which the Contractor is required to perform this contract, and it believes the denial is attributable to the race, color, religion, sex, or national origin of the employee or potential employee.

(End of Clause)

I–26 52.222-35 Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001)

(a) *Definitions.* As used in this clause --

"All employment openings" means all positions except executive and top management, those positions that will be filled from within the Contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days duration, and part-time employment.

"Executive and top Management" means any employee-

(1) Whose primary duty consists of the management of the enterprise in which the individual is employed or of a customarily recognized department or subdivision thereof;

(2) Who customarily and regularly directs the work of two or more other employees;

(3) Who has the authority to hire or fire other employees or whose suggestions and recommendations as to the hiring or firing and as to the advancement and promotion or any other change of status of other employees will be given particular weight;

(4) Who customarily and regularly exercises discretionary powers; and

(5) Who does not devote more than 20 percent or, in the case of an employee of a retail or service establishment, who does not devote more than 40 percent of total hours of work in the work week to activities that are not directly and closely related to the performance of the work described in paragraphs (1) through (4) of this definition. This paragraph (5) does not apply in the case of an employee who is in sole charge of an establishment or a physically separated branch establishment, or who owns at least a 20 percent interest in the enterprise in which the individual is employed.

"Other eligible veteran" means any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.

"Positions that will be filled from within the Contractor's organization" means employment openings for which the Contractor will give no consideration to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

"Qualified special disabled veteran" means a special disabled veteran who satisfies the requisite skill, experience, education, and other job-related requirements of the employment position such veteran holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

"Special disabled veteran" means-

(1) A veteran who is entitled to compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the Department of Veterans Affairs for a disability--

(i) Rated at 30 percent or more; or

(ii) Rated at 10 or 20 percent in the case of a veteran who has been determined under 38 U.S.C. 3106 to have a serious employment handicap (*i.e.*, a significant impairment of the veteran's ability to prepare for, obtain, or retain employment consistent with the veteran's abilities, aptitudes, and interests); or

(2) A person who was discharged or released from active duty because of a service-connected disability.

"Veteran of the Vietnam era" means a person who -

(1) Served on active duty for a period of more than 180 days and was discharged or released from active duty with other than a dishonorable discharge, if any part of such active duty occurred-

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases; or

(2) Was discharged or released from active duty for a service-connected disability if any part of the active duty was performed---

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases.

(b) *General*.

(1) The Contractor shall not discriminate against the individual because the individual is a special disabled veteran, a veteran of the Vietnam era, or other eligible veteran, regarding any position for which the employee or applicant for employment is qualified. The Contractor shall take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based upon their disability or veterans' status in all employment practices such as --

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;

(iii) Rate of pay or any other form of compensation and changes in compensation;

(iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;

(v) Leaves of absence, sick leave, or any other leave;

(vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;

(vii) Selection and financial support for training, including apprenticeship, and on-the-job training under 38 U.S.C. 3687, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;

(viii) Activities sponsored by the Contractor including social or recreational programs; and

(ix) Any other term, condition, or privilege of employment.

(2) The Contractor shall comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans'

Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).

(c) *Listing openings*.

(1) The Contractor shall immediately list all employment openings that exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract, and including those occurring at an establishment of the Contractor other than the one where the contract is being performed, but excluding those of independently operated corporate affiliates, at an appropriate local public employment service office of the State wherein the opening occurs. Listing employment openings with the U.S. Department of Labor's America's Job Bank shall satisfy the requirement to list jobs with the local employment service office.

(2) The Contractor shall make the listing of employment openings with the local employment service office at least concurrently with using any other recruitment source or effort and shall involve the normal obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing of employment openings does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(3) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State public employment agency in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State agency, it need not advise the State agency of subsequent contracts. The Contractor may advise the State agency when it is no longer bound by this contract clause.

(d) *Applicability.* This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the northern Mariana Islands, American Samoa, Guam, the Virgin Islands of the United States, and Wake Island.

(e) *Postings.*

(1) The Contractor shall post employment notices in conspicuous places that are available to employees and applicants for employment.

(2) The employment notices shall--

(i) State the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants who are special disabled veterans, veterans of the Vietnam era, and other eligible veterans; and

(ii) Be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary of Labor), and provided by or through the Contracting Officer.

(3) The Contractor shall ensure that applicants or employees who are special disabled veterans are informed of the contents of the notice (*e.g.*, the Contractor may have the notice read to a visually disabled veteran, or may lower the posted notice so that it can be read by a person in a wheel chair).

(4) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement, or other contract understanding, that the Contractor is bound by the terms of the Act and is committed to take affirmative action to employ, and advance in employment, qualified special disabled veterans, veterans of the Vietnam Era, and other eligible veterans.

(f) *Noncompliance*. If the Contractor does not comply with the requirements of this clause, the Government may take appropriate actions under the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(g) *Subcontracts*. The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of $25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Deputy Assistant Secretary of Labor to enforce the terms, including action for noncompliance.

(End of Clause)

I–27 52.222-36 Affirmative Action for Workers with Disabilities (Jun 1998)

(a) *General.*

(1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as --

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;

(iii) Rates of pay or any other form of compensation and changes in compensation;

(iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;

(v) Leaves of absence, sick leave, or any other leave;

(vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;

(vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;

(viii) Activities sponsored by the Contractor, including social or recreational programs; and

(ix) Any other term, condition, or privilege of employment.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) *Postings.*

(1) The Contractor agrees to post employment notices stating --

(i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and

(ii) The rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (*e.g.*, the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form

prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) *Noncompliance.* If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) *Subcontracts.* The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of $10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of Clause)

I–28 52.222-37 Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001)

(a) Unless the Contractor is a State or local Government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on --

(1) The number of special disabled veterans, the number of veterans of the Vietnam era, and other eligible veterans in the workforce of the Contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of the total, the number of special disabled veterans, the number of veterans of the Vietnam era, and the number of other eligible veterans; and

(3) The maximum number and the minimum number of employees of the Contractor during the period covered by the report.

(b) The Contractor shall report the above items by completing the Form VETS-100, entitled "Federal Contractor Veterans' Employment Report (VETS-100 Report)".

(c) The Contractor shall submit VETS-100 Reports no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date--

(1) As of the end of any pay period between July 1 and August 31 of the year the report is due, or

(2) As of December 31, if the Contractor has prior written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The Contractor shall base the count of veterans reported according to paragraph (a) of this clause on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all special disabled veterans, veterans of the Vietnam era, and other eligible veterans who wish to benefit under the affirmative action program at 38 U.S.C.4212 to identify themselves to the Contractor. The invitation shall state--

(1) That the information is voluntarily provided;

(2) That the information will be kept confidential;

(3) Disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and

(4) The information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of $25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

(End of Clause)

I–29 52.223-5 Pollution Prevention and Right-to-Know Information (Apr 1998)

(a) Executive Order 12856 of August 3, 1993, requires Federal facilities to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050) and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).

(b) The Contractor shall provide all information needed by the Federal facility to comply with the emergency planning reporting requirements of Section 302 of EPCRA; the emergency notice requirements of Section 304 of EPCRA; the list of Material Safety Data Sheets required by Section 311 of EPCRA; the emergency and hazardous chemical inventory forms of Section 312 of EPCRA; the toxic

chemical release inventory of Section 313 of EPCRA, which includes the reduction and recycling information required by Section 6607 of PPA; and the toxic chemical reduction goals requirements of Section 3-302 of Executive Order 12856.

(End of Clause)

I–30 52.223-10 Waste Reduction Program (Aug 2000)

(a) *Definitions.* As used in this clause-

"Recycling" means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of products other than fuel for producing heat or power by combustion.

"Waste prevention" means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

"Waste reduction" means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.

(b) Consistent with the requirements of Section 701 of Executive Order 13101, the Contractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by this contract. The Contractor's programs shall comply with applicable Federal, State, and local requirements, specifically including Section 6002 of the Resource Conservation and Recovery Act (42 U.S.C. 6962, *et seq*.) and implementing regulations (40 CFR part 247).

(End of Clause)

I–31 52.223-12 Refrigeration Equipment and Air Conditioners (May 1995)

The Contractor shall comply with the applicable requirements of Sections 608 and 609 of the Clean Air Act (42 U.S.C. 7671g and 7671h) as each or both apply to this contract.

(End of Clause)

I–32 52.224-1 Privacy Act Notification (Apr 1984)

The Contractor will be required to design, develop, or operate a system of records on individuals, to accomplish an agency function subject to the Privacy Act of 1974, Public Law 93-579, December 31, 1974 (5 U.S.C.552a) and applicable agency regulations. Violation of the Act may involve the imposition of criminal penalties.

(End of Clause)

I–33 52.224-2 Privacy Act (Apr 1984)

(a) The Contractor agrees to --

(1) Comply with the Privacy Act of 1974 (the Act) and the agency rules and regulations issued under the Act in the design, development, or operation of any system of records on individuals to accomplish an agency function when the contract specifically identifies --

(i) The systems of records; and

(ii) The design, development, or operation work that the Contractor is to perform;

(2) Include the Privacy Act notification contained in this contract in every solicitation and resulting subcontract and in every subcontract awarded without a solicitation, when the work statement in the proposed subcontract requires the redesign, development, or operation of a system of records on individuals that is subject to the Act; and

(3) Include this clause, including this subparagraph (3), in all subcontracts awarded under this contract which requires the design, development, or operation of such a system of records.

(b) In the event of violations of the Act, a civil action may be brought against the agency involved when the violation concerns the design, development, or operation of a system of records on individuals to accomplish an agency function, and criminal penalties may be imposed upon the officers or employees of the agency when the violation concerns the operation of a system of records on individuals to accomplish an agency function. For purposes of the Act, when the contract is for the operation of a system of records on individuals to accomplish an agency function, the Contractor is considered to be an employee of the agency.

(c)

(1) "Operation of a system of records," as used in this clause, means performance of any of the activities associated with maintaining the system of records, including the collection, use, and dissemination of records.

(2) "Record," as used in this clause, means any item, collection, or grouping of information about an individual that is maintained by an agency, including, but not limited to, education, financial transactions, medical history, and criminal or employment history and that contains the person's name, or the identifying number, symbol, or other identifying particular

assigned to the individual, such as a fingerprint or voiceprint or a photograph.

(3) "System of records on individuals," as used in this clause, means a group of any records under the control of any agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual.

(End of Clause)

I–34 52.225-1 Buy American Act - Supplies (June 2003)

(a) *Definitions*. As used in this clause--

Component" means an article, material, or supply incorporated directly into an end product.

"Cost of components" means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

"Domestic end product" means--

(1) An unmanufactured end product mined or produced in the United States; or

(2) An end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as those that the agency determines are not mined, produced, or manufactured in sufficient and reasonably available commercial quantities of a satisfactory quality are treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic.

"End product" means those articles, materials, and supplies to be acquired under the contract for pubic use.

"Foreign end product" means an end product other than a domestic end product.

"United States" means the 50 States, the District of Columbia, and outlying areas.

(b) The Buy American Act (41 U.S.C. 10a-10d) provides a preference for domestic end products for supplies acquired for use in the United States.

(c) Offerors may obtain from the Contracting Officer a list of foreign articles that the Contracting Officer will treat as domestic for this contract.

(d) The Contractor shall deliver only domestic end products except to the extent that it specified delivery of foreign end products in the provision of the solicitation entitled "Buy American Act Certificate."

(End of clause)

I–35 52.225-9 Buy American Act-Construction Materials (June 2003)

(a) *Definitions*. As used in this clause--

"Component" means an article, material, or supply incorporated directly into a construction material.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or a Subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs,

but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

"Domestic construction material" means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

"Foreign construction material" means a construction material other than a domestic construction material.

"United States" means the 50 States, the District of Columbia, and outlying areas.

(b) *Domestic preference.*

(1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows: _____ [*Contracting Officer to list applicable excepted materials or indicate ``none''*]

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act.

(1)

(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data.* To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	**Unit of measure**	**Quantity**	**Price (dollars) ***
Item 1			
Foreign construction material			
Domestic construction material			
Item 2			
Foreign construction material			
Domestic construction material			

[*List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.*]

[*Include other applicable supporting information.*]

[**Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]*

(End of Clause)

I–36 52.225-13 Restriction on Certain Foreign Purchases (Jul 2000)

(a) The Contractor shall not acquire, for use in the performance of this contract, any supplies or services originating from sources within, or that were located in or transported from or through, countries whose products are banned from

importation into the United States under regulations of the Office of Foreign Assets Control, Department of the Treasury. Those countries are Cuba, Iran, Iraq, Libya, North Korea, Sudan, the territory of Afghanistan controlled by the Taliban, and Serbia (excluding the territory of Kosovo).

(b) The Contractor shall not acquire for use in the performance of this contract any supplies or services from entities controlled by the Government of Iraq.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of Clause)

I–37 52.229-8 Taxes -- Foreign Cost-Reimbursement Contracts (Mar 1990)

(a) Any tax or duty from which the United States Government is exempt by agreement with the Government of the successor states of the former Soviet Union (the Ukraine, Belarus, Kazakhstan, Russia, the Baltic States of Latvia and Lithuania, and Uzbekistan), or from which the Contractor or any Subcontractor under this contract is exempt under the laws of the successor states of the former Soviet Union (the Ukraine, Belarus, Kazakhstan, Russia, the Baltic States of Latvia and Lithuania, and Uzbekistan), shall not constitute an allowable cost under this contract.

(b) If the Contractor or Subcontractor under this contract obtains a foreign tax credit that reduces its Federal income tax liability under the United States Internal Revenue Code (Title 26, U.S. Code) because of the payment of any tax or duty that was reimbursed under this contract, the amount of the reduction shall be paid or credited at the time of such offset to the Government of the United States as the Contracting Officer directs.

(End of Clause)

I–38 52.230-2 Cost Accounting Standards (Apr 1998)

(a) Unless the contract is exempt under 48 CFR 9903.201-1 and 9903.201-2, the provisions of 48 CFR Part 9903 are incorporated herein by reference and the Contractor, in connection with this contract, shall --

(1) *(CAS-covered Contracts Only)* By submission of a Disclosure Statement, disclose in writing the Contractor's cost accounting practices as required by 48 CFR 9903.202-1 through 9903.202-5, including methods of distinguishing direct costs from indirect costs and the basis used for allocating indirect costs. The practices disclosed for this contract shall be the same as the practices currently disclosed and applied on all other contracts and subcontracts being performed by the Contractor and which contain a Cost Accounting Standards (CAS) clause. If the Contractor has notified the Contracting Officer that the Disclosure Statement contains trade secrets and commercial or financial information which is privileged

and confidential, the Disclosure Statement shall be protected and shall not be released outside of the Government.

(2) Follow consistently the Contractor's cost accounting practices in accumulating and reporting contract performance cost data concerning this contract. If any change in cost accounting practices is made for the purposes of any contract or subcontract subject to CAS requirements, the change must be applied prospectively to this contract and the Disclosure Statement must be amended accordingly. If the contract price or cost allowance of this contract is affected by such changes, adjustment shall be made in accordance with subparagraph (a)(4) or (a)(5) of this clause, as appropriate.

(3) Comply with all CAS, including any modifications and interpretations indicated thereto contained in 48 CFR Part 9904, in effect on the date of award of this contract or, if the Contractor has submitted cost or pricing data, on the date of final agreement on price as shown on the Contractor's signed certificate of current cost or pricing data. The Contractor shall also comply with any CAS (or modifications to CAS) which hereafter become applicable to a contract or subcontract of the Contractor. Such compliance shall be required prospectively from the date of applicability to such contract or subcontract.

(4)

(i) Agree to an equitable adjustment as provided in the Changes clause of this contract if the contract cost is affected by a change which, pursuant to subparagraph (a)(3) of this clause, the Contractor is required to make to the Contractor's established cost accounting practices.

(ii) Negotiate with the Contracting Officer to determine the terms and conditions under which a change may be made to a cost accounting practice, other than a change made under other provisions of subparagraph (a)(4) of this clause; provided that no agreement may be made under this provision that will increase costs paid by the United States.

(iii) When the Parties agree to a change to a cost accounting practice, other than a change under subdivision (a)(4)(i) of this clause, negotiate an equitable adjustment as provided in the Changes clause of this contract.

(5) Agree to an adjustment of the contract price or cost allowance, as appropriate, if the Contractor or a Subcontractor fails to comply with an applicable Cost Accounting Standard, or to follow any cost accounting

practice consistently and such failure results in any increased costs paid by the United States. Such adjustment shall provide for recovery of the increased costs to the United States, together with interest thereon computed at the annual rate established under section 6621 of the Internal Revenue Code of 1986 (26 U.S.C.6621) for such period, from the time the payment by the United States was made to the time the adjustment is effected. In no case shall the Government recover costs greater than the increased cost to the Government, in the aggregate, on the relevant contracts subject to the price adjustment, unless the Contractor made a change in its cost accounting practices of which it was aware or should have been aware at the time of price negotiations and which it failed to disclose to the Government.

(b) If the Parties fail to agree whether the Contractor or a Subcontractor has complied with an applicable CAS in 48 CFR 9904 or a CAS rule or regulation in 48 CFR 9903 and as to any cost adjustment demanded by the United States, such failure to agree will constitute a dispute under the Contract Disputes Act (41 U.S.C.601).

(c) The Contractor shall permit any authorized representatives of the Government to examine and make copies of any documents, papers, or records relating to compliance with the requirements of this clause.

(d) The Contractor shall include in all negotiated subcontracts which the Contractor enters into, the substance of this clause, except paragraph (b), and shall require such inclusion in all other subcontracts, of any tier, including the obligation to comply with all CAS in effect on the Subcontractor's award date or if the Subcontractor has submitted cost or pricing data, on the date of final agreement on price as shown on the Subcontractor's signed Certificate of Current Cost or Pricing Data. If the subcontract is awarded to a business unit which pursuant to 48 CFR 9903.201-2 is subject to other types of CAS coverage, the substance of the applicable clause set forth in subsection 30.201-4 of the Federal Acquisition Regulation shall be inserted. This requirement shall apply only to negotiated subcontracts in excess of $500,000, except that the requirement shall not apply to negotiated subcontracts otherwise exempt from the requirement to include a CAS clause as specified in 48 CFR 9903.201-1.

(End of Clause)

I–39 52.230-6 Administration of Cost Accounting Standards (Nov 1999)

For the purpose of administering the Cost Accounting Standards (CAS) requirements under this contract, the Contractor shall take the steps outlined in paragraphs (a) through (g) of this clause:

(a) Submit to the Contracting Officer a description of any cost accounting practice change, the total potential impact of the change on contracts containing a CAS clause, and a general dollar magnitude of the change which identifies the potential shift of costs between CAS-covered contracts by contract type (i.e., firm-fixed-

price, incentive, cost-plus-fixed fee, etc.) and other Contractor business activity. As related to CAS-covered contracts, the analysis should identify the potential impact on funds of the various Agencies/Departments (i.e., Department of Energy, National Aeronautics and Space Administration, Army, Navy, Air Force, other Department of Defense, other Government) as follows:

(1) For any change in cost accounting practices required in accordance with subparagraph (a)(3) and subdivision (a)(4)(i) of the clause at FAR 52.230-2, Cost Accounting Standards; or subparagraph (a)(3) and subdivisions (a)(4)(i) or (a)(4)(iv) of the clause at FAR 52.230-5, Cost Accounting Standards -- Educational Institution; within 60 days (or such other date as may be mutually agreed to) after award of a contract requiring this change.

(2) For any change in cost accounting practices proposed in accordance with subdivision (a)(4)(ii) or (iii) of the clauses at FAR 52.230-2, Cost Accounting Standards, and FAR 52.230-5, Cost Accounting Standards -- Educational Institution; or with subparagraph (a)(3) of the clause at FAR 52.230-3, Disclosure and Consistency of Cost Accounting Practices, not less than 60 days (or such other date as may be mutually agreed to) before the effective date of the proposed change.

(3) For any failure to comply with an applicable CAS or to follow a disclosed practice (as contemplated by subparagraph (a)(5) at FAR 52.230-2, Cost Accounting Standards, and FAR 52.230-5, Cost Accounting Standards -- Educational Institution; or by subparagraph (a)(4) at FAR 52.230-3, Disclosure and Consistency of Cost Accounting Practices):

(i) Within 60 days (or such other date as may be mutually agreed to) after the date of agreement with the initial finding of noncompliance, or

(ii) In the event of Contractor disagreement with the initial finding of noncompliance, within 60 days of the date the Contractor is notified by the Contracting Officer of the determination of noncompliance.

(b) After an ACO, or cognizant Federal agency official, determination of materiality, submit a cost impact proposal in the form and manner specified by the Contracting Officer within 60 days (or such other date as may be mutually agreed to) after the date of determination of the adequacy and compliance of a change submitted pursuant to paragraph (a) of this clause. The cost impact proposal shall be in sufficient detail to permit evaluation, determination, and negotiation of the cost impact upon each separate CAS-covered contract and subcontract.

(1) Cost impact proposals submitted for changes in cost accounting practices required in accordance with subparagraph (a)(3) and subdivision (a)(4)(i)

of the clause at FAR 52.230-2, Cost Accounting Standards; or subparagraph (a)(3) and subdivisions (a)(4)(i) or (a)(4)(iv) of the clause at FAR 52.230-5, Cost Accounting Standards -- Educational Institution; shall identify the applicable standard or cost principle and all contracts and subcontracts containing the clauses entitled Cost Accounting Standards or Cost Accounting Standards -- Educational Institution, which have an award date before the effective date of that standard or cost principle.

(2) Cost impact proposals submitted for any change in cost accounting practices proposed in accordance with subdivisions (a)(4)(ii) or (iii) of the clauses at FAR 52.230-2, Cost Accounting Standards, and FAR 52.230-5, Cost Accounting Standards -- Educational Institution; or with subparagraph (a)(3) of the clause at FAR 52.230-3, Disclosure and Consistency of Cost Accounting Practices; shall identify all contracts and subcontracts containing the clauses at FAR 52.230-2, Cost Accounting Standards, FAR 52.230-5, Cost Accounting Standards -- Educational Institution, and FAR 52.230-3, Disclosure and Consistency of Cost Accounting Practices.

(3) Cost impact proposals submitted for failure to comply with an applicable CAS or to follow a disclosed practice as contemplated by subparagraph (a)(5) of the clauses at FAR 52.230-2, Cost Accounting Standards, and FAR 52.230-5, Cost Accounting Standards -- Educational Institution; or by subparagraph (a)(4) of the clause at FAR 52.230-3, Disclosure and Consistency of Cost Accounting Practices, shall identify the cost impact on each separate CAS covered contract from the date of failure to comply until the noncompliance is corrected.

(c) If the submissions required by paragraphs (a) and (b) of this clause are not submitted within the specified time, or any extension granted by the Contracting Officer, an amount not to exceed 10 percent of each subsequent amount determined payable related to the Contractor's CAS-covered prime contracts, up to the estimated general dollar magnitude of the cost impact, may be withheld until such time as the required submission has been provided in the form and manner specified by the Contracting Officer.

(d) Agree to appropriate contract and subcontract amendments to reflect adjustments established in accordance with subparagraphs (a)(4) and (a)(5) of the clauses at FAR 52.230-2 and 52.230-5; or with subparagraphs (a)(3) or (a)(4) of the Disclosure and Consistency of Cost Accounting Practices clause at FAR 52.230-3.

(e) For all subcontracts subject to the clauses at FAR 52.230-2, 52.230-3, or 52.230-5 --

(1) So state in the body of the subcontract, in the letter of award, or in both (self-deleting clauses shall not be used);

(2) Include the substance of this clause in all negotiated subcontracts; and

(3) Within 30 days after award of the subcontract, submit the following information to the Contractor's cognizant contract administration office for transmittal to the contract administration office cognizant of the Subcontractor's facility:

(i) Subcontractor's name and subcontract number.

(ii) Dollar amount and date of award.

(iii) Name of Contractor making the award.

(f) Notify the Contracting Officer in writing of any adjustments required to subcontracts under this contract and agree to an adjustment, based on them, to this contract price or estimated cost and fee. This notice is due within 30 days after proposed subcontract adjustments are received and shall include a proposal for adjusting the higher tier subcontract or the prime contract appropriately.

(g) For subcontracts containing the clauses at FAR 52.230-2 or 52.230-5, require the Subcontractor to comply with all Standards in effect on the date of award or of final agreement on price, as shown on the Subcontractor's signed Certificate of Current Cost or Pricing Data, whichever is earlier.

(End of Clause)

I–40 52.232-17 Interest (Jun 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid.

(b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of Clause)

I–41 52.232-24 Prohibition of Assignment of Claims (Jan 1986)

The assignment of claims under the Assignment of Claims Act of 1940, as amended, 31 U.S.C. 3727, 41 U.S.C. 15, is prohibited for this contract.

(End of Clause)

I–42 52.233-1 Disputes (Jul 2002) Alternate I (Jul 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting Parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding $100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)

(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the

Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)

(i) The Contractor shall provide the certification specified in paragraph (d)(2)(iii) of this clause when submitting any claim exceeding $100,000.

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor."

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of $100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over $100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the Parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the offer.

(h) The Government shall pay interest on the amount found due and unpaid from

(1) the date that the Contracting Officer receives the claim (certified, if required); or

(2) the date that payment otherwise would be due, if that date is later, until the date of payment.

With regard to claims having defective certifications, as defined in FAR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

(End of Clause)

I–43 52.233-3 Protest After Award (Aug 1996) Alternate I (Jun 1985)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either --

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if --

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may

receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of Clause)

I–44 52.236-8 Other Contracts (Apr 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other Contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other Contractor or by Government employees.

(End of Clause)

I–45 52.237-3 Continuity of Services (Jan 1991)

(a) The Contractor recognizes that the services under this contract are vital to the Government and must be continued without interruption and that, upon contract expiration, a successor, either the Government or another Contractor, may continue them. The Contractor agrees to --

(1) Furnish phase-in training; and

(2) Exercise its best efforts and cooperation to effect an orderly and efficient transition to a successor.

(i) The Contractor shall, upon the Contracting Officer's written notice,

(A) furnish phase-in, phase-out services for up to 90 days after this contract expires and

(B) negotiate in good faith a plan with a successor to determine the nature and extent of phase-in, phase-out services required.

The plan shall specify a training program and a date for transferring responsibilities for each division of work described in the plan, and shall be subject to the Contracting Officer's approval. The Contractor shall provide sufficient experienced personnel during the phase-in, phase-out period to ensure that the services called for by this contract are maintained at the required level of proficiency.

(c) The Contractor shall allow as many personnel as practicable to remain on the job to help the successor maintain the continuity and consistency of the services required by this contract. The Contractor also shall disclose necessary personnel records and allow the successor to conduct on-site interviews with these employees. If selected employees are agreeable to the change, the Contractor shall release them at a mutually agreeable date and negotiate transfer of their earned fringe benefits to the successor.

(d) The Contractor shall be reimbursed for all reasonable phase-in, phase-out costs (i.e., costs incurred within the agreed period after contract expiration that result from phase-in, phase-out operations) and a fee (profit) not to exceed a pro rata portion of the fee (profit) under this contract.

(End of Clause)

I–46 52.242-1 Notice of Intent to Disallow Costs (Apr 1984)

a) Notwithstanding any other clause of this contract --

(1) The Contracting Officer may at any time issue to the Contractor a written notice of intent to disallow specified costs incurred or planned for incurrence under this contract that have been determined not to be allowable under the contract terms; and

(2) The Contractor may, after receiving a notice under subparagraph (1) above, submit a written response to the Contracting Officer, with justification for allowance of the costs. If the Contractor does respond within 60 days, the Contracting Officer shall, within 60 days of receiving the response, either make a written withdrawal of the notice or issue a written decision.

(b) Failure to issue a notice under this Notice of Intent to Disallow Costs clause shall not affect the Government's rights to take exception to incurred costs.

(End of Clause)

I–47 52.242-13 Bankruptcy (Jul 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of Clause)

I–48 52.244-5 Competition in Subcontracting (Dec 1996)

a) The Contractor shall select Subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract.

(b) If the Contractor is an approved mentor under the Department of Defense Pilot Mentor-Protégé Program (Pub. L. 101-510, section 831 as amended), the Contractor may award subcontracts under this contract on a noncompetitive basis to its protégés.

(End of Clause)

I–49 52.244-6 Subcontracts for Commercial Items (Apr 2003)

(a) *Definitions.* As used in this clause--

"Commercial item" has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract" includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or Subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its Subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)

(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (Oct 200) (15 U.S.C. 637(d)(2)(3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceed $500,000 ($1,000,000 for construction of any public facility), the Subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212(a));

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (Jun 998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (APR 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of Clause)

I–50 52.247-1 Commercial Bill of Lading Notations (Apr 1984)

If the Contracting Officer authorizes supplies to be shipped on a commercial bill of lading and the Contractor will be reimbursed these transportation costs as direct allowable costs, the Contractor shall ensure before shipment is made that the commercial shipping documents are annotated with either of the following notations, as appropriate:

(a) If the Government is shown as the consignor or the consignee, the annotation shall be:

Transportation is for the Department of Energy and the actual total transportation charges paid to the carrier(s) by the consignor or consignee are assignable to, and shall be reimbursed by, the Government.

(b) If the Government is not shown as the consignor or the consignee, the annotation shall be:

Transportation is for the Department of Energy and the actual total transportation charges paid to the carrier(s) by the consignor or consignee shall be reimbursed by the Government, pursuant to cost-reimbursement contract No. DE-AC06-76RL01830. This may be confirmed by contacting the U.S. Department of Energy; Procurement Services Division; P.O. Box 550, A7-80; Richland, Washington, 99352.

(End of Clause)

I–51 52.247-63 Preference for U.S.-Flag Air Carriers (Jan 1997)

(a) "International air transportation," as used in this clause, means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States.

"United States," as used in this clause, means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, and possessions of the United States.

"U.S.-flag air carrier," as used in this clause, means an air carrier holding a certificate under 49 U.S.C. Chapter 411.

(b) Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) (Fly America Act) requires that all Federal agencies and Government Contractors and Subcontractors use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.

(c) The Contractor agrees, in performing work under this contract, to use U.S.-flag air carriers for international air transportation of personnel (and their personal effects) or property to the extent that service by those carriers is available.

(d) In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows:

Statement of Unavailability of U.S.-Flag Air Carriers

International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign-flag air carrier service for the following reasons (see section 47.403 of the Federal Acquisition Regulation):
[State reasons]:

_____

(End of statement)

(e) The Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase under this contract that may involve international air transportation.

(End of Clause)

I–52 52.247-64 Preference for Privately Owned U.S.-Flag Commercial Vessels (APR 2003)

(a) Except as provided in paragraph (e) of this clause, the Cargo Preference Act of 1954 (46 U.S.C. Appx 1241(b)) requires that Federal departments and agencies shall transport in privately owned U.S.-flag commercial vessels at least 50 percent of the gross tonnage of equipment, materials, or commodities that may be transported in ocean vessels (computed separately for dry bulk carriers, dry cargo liners, and tankers). Such transportation shall be accomplished when any equipment, materials, or commodities, located within or outside the United States, that may be transported by ocean vessel are --

(1) Acquired for a U.S. Government agency account;

(2) Furnished to, or for the account of, any foreign nation without provision for reimbursement;

(3) Furnished for the account of a foreign nation in connection with which the United States advances funds or credits, or guarantees the convertibility of foreign currencies; or

(4) Acquired with advance of funds, loans, or guaranties made by or on behalf of the United States.

(b) The Contractor shall use privately owned U.S.-flag commercial vessels to ship at least 50 percent of the gross tonnage involved under this contract (computed separately for dry bulk carriers, dry cargo liners, and tankers) whenever shipping any equipment, materials, or commodities under the conditions set forth in paragraph (a) above, to the extent that such vessels are available at rates that are fair and reasonable for privately owned U.S.-flag commercial vessels.

(c)

(1) The Contractor shall submit one legible copy of a rated on-board ocean bill of lading for each shipment to both --

(i) The Contracting Officer, and

(ii) The:

Office of Cargo Preference
Maritime Administration (MAR-590)
400 Seventh Street, SW
Washington, DC 20590

Subcontractor bills of lading shall be submitted through the Prime Contractor.

(2) The Contractor shall furnish these bill of lading copies

(i) within 20 working days of the date of loading for shipments originating in the United States, or

(ii) within 30 working days for shipments originating outside the United States. Each bill of lading copy shall contain the following information:

(A) Sponsoring U.S. Government agency.
(B) Name of vessel.
(C) Vessel flag of registry.
(D) Date of loading.
(E) Port of loading.
(F) Port of final discharge.
(G) Description of commodity.
(H) Gross weight in pounds and cubic feet if available.
(I) Total ocean freight revenue in U.S. dollars.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts or purchase orders under this contract, except those described in paragraph (e)(4).

(e) The requirement in paragraph (a) does not apply to --

(1) Cargoes carried in vessels of the Panama Canal Commission or as required or authorized by law or treaty;

(2) Ocean transportation between foreign countries of supplies purchased with foreign currencies made available, or derived from funds that are made available, under the Foreign Assistance Act of 1961 (22 U.S.C. 2353);

(3) Shipments of classified supplies when the classification prohibits the use of non-Government vessels; and

(4) Subcontracts or purchase orders for the acquisition of commercial items unless-

(i) This contract is-

(A) A contract or agreement for ocean transportation services; or

(B) A construction contract; or

(ii) The supplies being transported are-

(A) Items the Contractor is reselling or distributing to the Government without adding value. (Generally, the Contractor does not add value to the items when it subcontracts items for f.o.b. destination shipment); or

(B) Shipped in direct support of U.S. military-

(1) Contingency operations:

(2) Exercises; or

(3) Forces deployed in connection with United Nations or North Atlantic Treaty Organization humanitarian or peacekeeping operations.

(f) Guidance regarding fair and reasonable rates for privately owned U.S.-flag commercial vessels may be obtained from the:

Office of Costs and Rates
Maritime Administration
400 Seventh Street, SW

Washington, DC 20590
Phone: 202-366-2324.

(End of Clause)

I–53 52.247-67 Submission of Commercial Transportation Bills to the General Services Administration for Audit (Jun 1997)

(a)

(1) In accordance with paragraph (a)(2) of this clause, the Contractor shall submit to the General Services Administration (GSA) for audit, legible copies of all paid freight bills/invoices, commercial bills of lading (CBL's), passenger coupons, and other supporting documents for transportation services on which the United States will assume freight charges that were paid --

(i) By the Contractor under a cost-reimbursement contract; and

(ii) By a first-tier Subcontractor under a cost-reimbursement subcontract thereunder.

(2) Cost-reimbursement Contractors shall only submit for audit those CBL's with freight shipment charges exceeding $50.00. Bills under $50.00 shall be retained on-site by the Contractor and made available for GSA on-site audits. This exception only applies to freight shipment bills and is not intended to apply to bills and invoices for any other transportation services.

(b) The Contractor shall forward copies of paid freight bills/invoices, CBL's, passenger coupons, and supporting documents as soon as possible following the end of the month, in one package to the:

General Services Administration
Attn: FWA
1800 F Street, NW
Washington, DC 20405.

The Contractor shall include the paid freight bills/invoices, CBL's, passenger coupons, and supporting documents for first-tier Subcontractors under a cost-reimbursement contract. If the inclusion of the paid freight bills/invoices, CBL's, passenger coupons, and supporting documents for any Subcontractor in the shipment is not practicable, the documents may be forwarded to GSA in a separate package.

(c) Any original transportation bills or other documents requested by GSA shall be forwarded promptly by the Contractor to GSA. The Contractor shall ensure that the name of the contracting agency is stamped or written on the face of the bill before sending it to GSA.

(d) A statement prepared in duplicate by the Contractor shall accompany each shipment of transportation documents. GSA will acknowledge receipt of the shipment by signing and returning the copy of the statement. The statement shall show --

(1) The name and address of the Contractor;

(2) The contract number including any alpha-numeric prefix identifying the contracting office;

(3) The name and address of the contracting office;

(4) The total number of bills submitted with the statement; and

(5) A listing of the respective amounts paid or, in lieu of such listing, an adding machine tape of the amounts paid showing the Contractor's voucher or check numbers.

(End of Clause)

I–54 52.249-6 Termination (Cost-Reimbursement) (Sep 1996) (Modified by DEAR 970.4905-1 (Dec 2000))

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part, if --

(1) The Contracting Officer determines that a termination is in the Government's interest; or

(2) The Contractor defaults in performing this contract and fails to cure the default within 10 days (unless extended by the Contracting Officer) after receiving a notice specifying the default. "Default" includes failure to make progress in the work so as to endanger performance.

(b) The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying whether termination is for default of the Contractor or for convenience of the Government, the extent of termination, and the effective date. If, after termination for default, it is determined that the Contractor was not in default or that the Contractor's failure to perform or to make progress in performance is due to causes beyond the control and without the fault or negligence of the Contractor as set forth in the Excusable Delays clause, the rights

and obligations of the Parties will be the same as if the termination was for the convenience of the Government.

(c) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause), except as necessary to complete the continued portion of the Contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts, the cost of which would be reimbursable in whole or in part, under this Contract; approval or ratification will be final for purposes of this clause.

(6) Transfer title (if not already transferred) and, as directed by the Contracting Officer, deliver to the Government --

(i) The fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated;

(ii) The completed or partially completed plans, drawings, information, and other property that, if the Contract had been completed, would be required to be furnished to the Government; and

(iii) The jigs, dies, fixtures, and other special tools and tooling acquired or manufactured for this Contract, the cost of which the Contractor has been or will be reimbursed under this Contract.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this Contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (c)(6) of this clause; provided, however, that the Contractor

(i) is not required to extend credit to any purchaser and

(ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer.

The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this Contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(d) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(e) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept the items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(f) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(g) Subject to paragraph (f) of this clause, the Contractor and the Contracting Officer may agree on the whole or any part of the amount to be paid (including an allowance for fee) because of the termination. The Contract shall be amended, and the Contractor paid the agreed amount.

(h) If the Contractor and the Contracting Officer fail to agree in whole or in part on the amount of costs and/or fee to be paid because of the termination of work, the Contracting Officer shall determine, on the basis of information available, the amount, if any, due the Contractor, and shall pay that amount, which shall include the following:

(1) All costs reimbursable under this Contract, not previously paid, for the performance of this Contract before the effective date of the termination, and those costs that may continue for a reasonable time with the approval of or as directed by the Contracting Officer; however, the Contractor shall discontinue those costs as rapidly as practicable.

(2) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the Contract if not included in subparagraph (h)(1) of this clause.

(3) The reasonable costs of settlement of the work terminated, including --

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory. If the termination is for default, no amounts for the preparation of the Contractor's termination settlement proposal may be included.

(4) A portion of the fee payable under the Contract, determined as follows:

(i) If the Contract is terminated for the convenience of the Government, the settlement shall include a percentage of the fee equal to the percentage of completion of work contemplated under the Contract, but excluding subcontract effort included in subcontractors' termination proposals, less previous payments for fee.

(ii) If the Contract is terminated for default, the total fee payable shall be such proportionate part of the fee as the total number of articles (or amount of services) delivered to and accepted by the Government is to the total number of articles (or amount of services) of a like kind required by the Contract.

(5) If the settlement includes only fee, it will be determined under subparagraph (h)(4) of this clause.

(i) The cost principles and procedures in Part 31 of the Federal Acquisition Regulation as supplemented in subpart 970.31 of the Department of Energy Acquisition Regulation, in effect on the date of this Contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (f), (h), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal within the time provided in paragraph (f) and failed to request a time extension, there is no right of appeal. If the Contracting Officer has made a determination of the amount due under paragraph (f), (h) or (l) of this clause, the Government shall pay the Contractor --

(1) The amount determined by the Contracting Officer if there is no right of appeal or if no timely appeal has been taken; or

(2) The amount finally determined on an appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted --

(1) All unliquidated advance or other payments to the Contractor, under the terminated portion of this Contract;

(2) Any claim which the Government has against the Contractor under this Contract; and

(3) The agreed price for, or the proceeds of sale of materials, supplies, or other things acquired by the Contractor or sold under this clause and not recovered by or credited to the Government.

(l) The Contractor and Contracting Officer must agree to any equitable adjustment in fee for the continued portion of the Contract when there is a partial termination. The Contracting Officer shall amend the Contract to reflect the agreement.

(m)

(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the Contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) The provisions of this clause relating to fee are inapplicable if this Contract does not include a fee.

(End of Clause)

I–55 52.249-14 Excusable Delays (Apr 1984)

(a) Except for defaults of Subcontractors at any tier, the Contractor shall not be in default because of any failure to perform this Contract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of these causes are

(1) acts of God or of the public enemy,
(2) acts of the Government in either its sovereign or contractual capacity,
(3) fires,
(4) floods,
(5) epidemics,
(6) quarantine restrictions,
(7) strikes,
(8) freight embargoes, and
(9) unusually severe weather.

In each instance, the failure to perform must be beyond the control and without the fault or negligence of the Contractor. "Default" includes failure to make progress in the work so as to endanger performance.

(b) If the failure to perform is caused by the failure of a subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be deemed to be in default, unless --

(1) The subcontracted supplies or services were obtainable from other sources;

(2) The Contracting Officer ordered the Contractor in writing to purchase these supplies or services from the other source; and

(3) The Contractor failed to comply reasonably with this order.

(c) Upon request of the Contractor, the Contracting Officer shall ascertain the facts and extent of the failure. If the Contracting Officer determines that any failure to perform results from one or more of the causes above, the delivery schedule shall be revised, subject to the rights of the Government under the termination clause of this Contract.

(End of Clause)

I–56 52.251-1 Government Supply Sources (Apr 1984) (DEVIATION)

The Contracting Officer may issue the Contractor an authorization to use Government supply sources in the performance of this Contract. Title to all property acquired by the Contractor under such an authorization shall vest in the Government unless otherwise specified in the Contract. Such property shall not be considered to be "Government-furnished property," as distinguished from "Government property." The provisions of the clause entitled "Property" shall apply to all property acquired under such authorization.

(End of Clause)

I–57 52.251-2 Interagency Fleet Management System Vehicles and Related Services (Jan 1991)

The Contracting Officer may issue the Contractor an authorization to obtain interagency fleet management system (IFMS) vehicles and related services for use in the performance of this Contract. The use, service, and maintenance of interagency fleet management system vehicles and the use of related services by the Contractor shall be in accordance with 41 CFR 101-39 and 41 CFR 101-38.301-1.

(End of Clause)

I–58 52.252-6 Authorized Deviations in Clauses (Apr 1984)

(a) The use in this solicitation or Contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or Contract of any Department of Energy Acquisition Regulation (48 CFR Chapter 9) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of Clause)

I–59 52.253-1 Computer Generated Forms (Jan 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the Parties will be determined based on the content of the required form.

(End of Clause)

I–60 952.203-70 Whistleblower Protection for Contractor Employees (Dec 2000)

(a) The Contractor shall comply with the requirements of "DOE Contractor Employee Protection Program" at 10 CFR part 708 for work performed on behalf of DOE directly related to activities at DOE-owned or-leased sites.

(b) The Contractor shall insert or have inserted the substance of this clause, including this paragraph (b), in subcontracts at all tiers, for subcontracts involving work performed on behalf of DOE directly related to activities at DOE-owned or leased sites.

(End of Clause)

I–61 952.204-2 Security (May 2002) (DEVIATION)

(a) *Responsibility*. It is the Contractor's duty to safeguard all classified information, special nuclear material, and other DOE property. The Contractor shall, in accordance with DOE security regulations and requirements, be responsible for safeguarding all classified information and protecting against sabotage, espionage, loss or theft of the classified documents and material in the Contractor's possession in connection with the performance of work under this Contract. Except as otherwise expressly provided in this Contract, the Contractor shall, upon completion or termination of this Contract, transmit to DOE any classified matter in the possession of the Contractor or any person under the Contractor's control in connection with performance of this Contract. If retention by the Contractor of any classified matter is required after the completion or termination of the Contract, the Contractor shall identify the items and types or categories of matter proposed for retention, the reasons for the retention of the matter, and the

proposed period of retention. If the retention is approved by the Contracting Officer, the security provisions of the Contract shall continue to be applicable to the matter retained. Special nuclear material shall not be retained after the completion or termination of the Contract.

(b) *Regulations*. The Contractor agrees to comply with all security regulations of DOE in effect on the date of award and all security requirements of DOE incorporated into this Contract pursuant to the clauses entitled “Laws, Regulations, and DOE Directives” and “Application of DOE Contractor Requirements Documents”.

(c) *Definition of classified information*. The term "classified information" means Restricted Data, Formerly Restricted Data, or National Security Information.

(d) *Definition of restricted data*. The term "Restricted Data" means all data concerning (1) design, manufacture, or utilization of atomic weapons; (2) the production of special nuclear material; or (3) the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the Restricted Data category pursuant to Section 142 of the Atomic Energy Act of 1954, as amended.

(e) *Definition of formerly restricted data*. The term *"Formerly Restricted Data"* means all data removed from the Restricted Data category under section 142 d. of the Atomic Energy Act of 1954, as amended.

(f) *Definition of National Security Information*. The term "National Security Information" means any information or material, regardless of its physical form or characteristics, that is owned by, produced for or by, or is under the control of the United States Government, that has been determined pursuant to Executive Order 12958 or prior Orders to require protection against unauthorized disclosure, and which is so designated.

(g) *Definition of Special Nuclear Material (SNM)*. *SNM* means: (1) plutonium, uranium enriched in the isotope 233 or in the isotope 235, and any other material which pursuant to the provisions of Section 51 of the Atomic Energy Act of 1954, as amended, has been determined to be special nuclear material, but does not include source material; or (2) any material artificially enriched by any of the foregoing, but does not include source material.

(h) *Security clearance of personnel*. The Contractor shall not permit any individual to have access to any classified information, except in accordance with the Atomic Energy Act of 1954, as amended, Executive Order 12958, and the DOE's regulations or requirements incorporated into this Contract pursuant to the clauses entitled “Laws, Regulations, and DOE Directives” and “Application of DOE Contractor Requirements Documents” applicable to the particular level and category of classified information to which access is required.

(i) *Criminal liability*. It is understood that disclosure of any classified information relating to the work or services ordered hereunder to any person not entitled to receive it, or failure to safeguard any classified information that may come to the Contractor or any person under the Contractor's control in connection with work under this Contract, may subject the Contractor, its agents, employees, or subcontractors to criminal liability under the laws of the United States. (See the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.; 18 U.S.C. 793 and 794; and E.O. 12958.)

(j) Foreign Ownership, Control or Influence. (1) The Contractor shall immediately provide the cognizant security office written notice of any change in the extent and nature of foreign ownership, control or influence over the Contractor which would affect any answer to the questions presented in the Certificate Pertaining to Foreign Interests, Standard Form 328 or the Foreign Ownership, Control or Influence questionnaire executed by the Contractor prior to the award of this Contract. In addition, any notice of changes in ownership or control which are required to be reported to the Securities and Exchange Commission, the Federal Trade Commission, or the Department of Justice shall also be furnished concurrently to the Contracting Officer. (2) If a Contractor has changes involving foreign ownership, control or influence, DOE must determine whether the changes will pose an undue risk to the common defense and security. In making this determination, DOE will consider proposals made by the Contractor to avoid or mitigate foreign influences. (3) If the cognizant security office at any time determines that the Contractor is, or is potentially, subject to foreign ownership, control or influence, the Contractor shall comply with such instructions as the Contracting Officer shall provide in writing to safeguard any classified information or special nuclear material. (4) The Contractor agrees to insert terms that conform substantially to the language of this clause, including this paragraph, in all subcontracts under this Contract that will require subcontractor employees to possess access authorizations. Additionally, the Contractor must require subcontractors to have an existing DOD or DOE Facility Clearance or submit a completed Certificate Pertaining to Foreign Interests, Standard Form 328, required in DEAR 952.204-73 prior to award of a subcontract. Information to be provided by a subcontractor pursuant to this clause may be submitted directly to the Contracting Officer. For purposes of this clause, subcontractor means any subcontractor at any tier and the term "Contracting Officer" means the DOE Contracting Officer. When this clause is included in a subcontract, the term "Contractor" shall mean subcontractor and the term "contract" shall mean subcontract. (5) The Contracting Officer may terminate this Contract for default either if the Contractor fails to meet obligations imposed by this clause or if the Contractor creates a FOCI situation in order to avoid performance or a termination for default. The Contracting Officer may terminate this Contract for convenience if the Contractor becomes subject to FOCI and for reasons other than avoidance of performance of the Contract, cannot, or chooses not to, avoid or mitigate the FOCI problem.

[49 FR 12042, Mar. 28, 1984; 49 FR 38951, Oct. 2, 1984, as amended at 52 FR 38425, Oct. 16, 1987; 62 FR 2310, Jan. 16, 1997; 62 FR 42072, Aug. 5, 1997; 67 FR 14873, Mar. 28, 2002]

(End of Clause)

I–62 952.204-70 Classification/Declassification (Sep 1997)(DEVIATION)

In the performance of work under this Contract, the Contractor or subcontractor shall comply with all provisions of the Department of Energy's regulations; and DOE directives incorporated into this Contract pursuant to the clauses entitled, “Laws, Regulations, and DOE Directives” and “Application of DOE Contractor Requirements Documents” which apply to work involving the classification and declassification of information, documents, or material. In this section, "information" means facts, data, or knowledge itself; "document" means the physical medium on or in which information is recorded; and "material" means a product or substance which contains or reveals information, regardless of its physical form or characteristics. Classified information is "Restricted Data" and "Formerly Restricted Data" (classified under the Atomic Energy Act of 1954, as amended) and "National Security Information" (classified under Executive Order 12958 or prior Executive Orders). The original decision to classify or declassify information is considered an inherently Governmental function. For this reason, only Government personnel may serve as original classifiers, i.e., Federal Government Original Classifiers. Other personnel (Government or Contractor) may serve as derivative classifiers which involves making classification decisions based upon classification guidance which reflect decisions made by Federal Government Original Classifiers.

The Contractor or subcontractor shall ensure that any document or material that may contain classified information is reviewed by either a Federal Government or a Contractor Derivative Classifier in accordance with classification regulations including DOE directives and classification/declassification guidance furnished to the Contractor by the Department of Energy to determine whether it contains classified information prior to dissemination. For information which is not addressed in classification/declassification guidance, but whose sensitivity appears to warrant classification, the Contractor or subcontractor shall ensure that such information is reviewed by a Federal Government Original Classifier.

In addition, the Contractor or subcontractor shall ensure that existing classified documents (containing either Restricted Data or Formerly Restricted Data or National Security Information) which are in its possession or under its control are periodically reviewed by a Federal Government or Contractor Derivative Declassifier in accordance with classification regulations, DOE directives and classification/declassification guidance furnished to the Contractor by the Department of Energy to determine if the documents are no longer appropriately classified. Priorities for declassification review of classified documents shall be based on the degree of public and researcher interest and the likelihood of declassification upon review. Documents which no longer contain

classified information are to be declassified. Declassified documents then shall be reviewed to determine if they are publicly releasable. Documents which are declassified and determined to be publicly releasable are to be made available to the public in order to maximize the public's access to as much Government information as possible while minimizing security costs.

The Contractor or subcontractor shall insert this clause in any subcontract which involves or may involve access to classified information.

(End of Clause)

I–63 952.204-75 Public Affairs (Dec 2000)

(a) The Contractor must cooperate with the Department in releasing unclassified information to the public and news media regarding DOE policies, programs, and activities relating to its effort under the Contract. The responsibilities under this clause must be accomplished through coordination with the Contracting Officer and appropriate DOE public affairs personnel in accordance with procedures defined by the Contracting Officer.

(b) The Contractor is responsible for the development, planning, and coordination of proactive approaches for the timely dissemination of unclassified information regarding DOE activities onsite and offsite, including, but not limited to, operations and programs. Proactive public affairs programs may utilize a variety of communication media, including public workshops, meetings or hearings, open houses, newsletters, press releases, conferences, audio/visual presentations, speeches, forums, tours, and other appropriate stakeholder interactions.

(c) The Contractor's internal procedures must ensure that all releases of information to the public and news media are coordinated through, and approved by, a management official at an appropriate level within the Contractor's organization.

(d) The Contractor must comply with DOE procedures for obtaining advance clearances on oral, written, and audio/visual informational material prepared for public dissemination or use.

(e) Unless prohibited by law, and in accordance with procedures defined by the Contracting Officer, the Contractor must notify the Contracting Officer and appropriate DOE public affairs personnel of communications or contacts with Members of Congress relating to the effort performed under the Contract.

(f) In accordance with procedures defined by the Contracting Officer, the Contractor must notify the Contracting Officer and appropriate DOE public affairs personnel of activities or situations that may attract regional or national news media attention and of non-routine inquiries from national news media relating to the effort performed under the Contract.

(g) In releases of information to the public and news media, the Contractor must fully and accurately identify the Contractor's relationship to the Department and fully and accurately credit the Department for its role in funding programs and projects resulting in scientific, technical, and other achievements.

(End of Clause)

I–64 952.208-7 Tagging of Leased Vehicles (Apr 1984)

(a) DOE intends to use U.S. Government license tags.

(b) While it is the intention that vehicles leased hereunder shall operate on Federal tags, the DOE reserves the right to utilize State tags if necessary to accomplish its mission. Should State tags be required, the Contractor shall furnish the DOE the documentation required by the State to acquire such tags.

(End of Clause)

I–65 952-209-72 Organizational Conflicts of Interest (Jun 1997) Alternate I (Jun 1997)

(a) *Purpose*. The purpose of this clause is to ensure that the Contractor (1) is not biased because of its financial, contractual, organizational, or other interests which relate to the work under this Contract, and (2) does not obtain any unfair competitive advantage over other Parties by virtue of its performance of this Contract.

(b) *Scope*. The restrictions described herein shall apply to performance or participation by the Contractor and any of its affiliates or their successors in interest (hereinafter collectively referred to as "Contractor") in the activities covered by this clause as a prime Contractor, subcontractor, cosponsor, joint venturer, consultant, or in any similar capacity. For the purpose of this clause, affiliation occurs when a business concern is controlled by or has the power to control another or when a third party has the power to control both.

(1) *Use of Contractor's Work Product*.

(i) The Contractor shall be ineligible to participate in any capacity in Department contracts, subcontracts, or proposals therefor (solicited and unsolicited) which stem directly from the Contractor's performance of work under this Contract for a period of two (2) years after the completion of this Contract. Furthermore, unless so directed in writing by the Contracting Officer, the Contractor shall not perform any advisory and assistance services work under this Contract on any of its products or services or the products or services of another firm if the Contractor is or has been substantially involved in their development or marketing. Nothing in this subparagraph shall preclude the Contractor from competing

for follow-on contracts for advisory and assistance services.

(ii) If, under this Contract, the Contractor prepares a complete or essentially complete statement of work or specifications to be used in competitive acquisitions, the Contractor shall be ineligible to perform or participate in any capacity in any contractual effort which is based on such statement of work or specifications. The Contractor shall not incorporate its products or services in such statement of work or specifications unless so directed in writing by the , in which case the restriction in this subparagraph shall not apply.

(iii) Nothing in this paragraph shall preclude the Contractor from offering or selling its standard and commercial items to the Government.

(2) Access to and use of information.

(i) If the Contractor, in the performance of this Contract, obtains access to information, such as Department plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or data which has not been released or otherwise made available to the public, the Contractor agrees that without prior written approval of the it shall not:

(A) use such information for any private purpose unless the information has been released or otherwise made available to the public;

(B) compete for work for the Department based on such information for a period of six (6) months after either the completion of this Contract or until such information is released or otherwise made available to the public, whichever is first;

(C) submit an unsolicited proposal to the Government which is based on such information until one year after such information is released or otherwise made available to the public; and

(D) release such information unless such information has previously been released or otherwise made available to the public by the Department.

(ii) In addition, the Contractor agrees that to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or other confidential or privileged

technical, business, or financial information under this Contract, it shall treat such information in accordance with any restrictions imposed on such information.

(iii) The Contractor may use technical data it first produces under this Contract for its private purposes consistent with paragraphs (b)(2)(i) (A) and (D) of this clause and the patent, rights in data, and security provisions of this Contract.

(c) *Disclosure after award*.

(1) The Contractor agrees that, if changes, including additions, to the facts disclosed by it prior to award of this Contract, occur during the performance of this Contract, it shall make an immediate and full disclosure of such changes in writing to the . Such disclosure may include a description of any action which the Contractor has taken or proposes to take to avoid, neutralize, or mitigate any resulting conflict of interest. The Department may, however, terminate the Contract for convenience if it deems such termination to be in the best interest of the Government.

(2) In the event that the Contractor was aware of facts required to be disclosed or the existence of an actual or potential organizational conflict of interest and did not disclose such facts or such conflict of interest to the , DOE may terminate this Contract for default.

(d) *Remedies*. For breach of any of the above restrictions or for nondisclosure or misrepresentation of any facts required to be disclosed concerning this Contract, including the existence of an actual or potential organizational conflict of interest at the time of or after award, the Government may terminate the Contract for default, disqualify the Contractor from subsequent related contractual efforts, and pursue such other remedies as may be permitted by law or this Contract.

(e) *Waiver*. Requests for waiver under this clause shall be directed in writing to the Contracting Officer and shall include a full description of the requested waiver and the reasons in support thereof. If it is determined to be in the best interests of the Government, the Contracting Officer may grant such a waiver in writing.

f) *Subcontracts*.

(1) The Contractor shall include a clause, substantially similar to this clause, including this paragraph (f), in subcontracts expected to exceed the simplified acquisition threshold determined in accordance with FAR Part 13 and involving the performance of advisory and assistance services as that term is defined at FAR 37.201. The terms ``contract," "Contractor," and "" shall be appropriately modified to preserve the Government's

rights.

(2) Prior to the award under this Contract of any such subcontracts for advisory and assistance services, the Contractor shall obtain from the proposed subcontractor or consultant the disclosure required by DEAR 909.507-1, and shall determine in writing whether the interests disclosed present an actual or significant potential for an organizational conflict of interest. Where an actual or significant potential organizational conflict of interest is identified, the Contractor shall take actions to avoid, neutralize, or mitigate the organizational conflict to the satisfaction of the Contractor. If the conflict cannot be avoided or neutralized, the Contractor must obtain the approval of the DOE Contracting Officer prior to entering into the subcontract.

(End of clause)

I–66 952.211-71 Priorities and Allocations (Atomic Energy) (Jun 1996)

The Contractor shall follow the provisions of Defense Priorities and Allocations System (DPAS) regulation (15 CFR Part 700) in obtaining controlled materials and other products and materials needed to fill this Contract.

(End of Clause)

I–67 952.211-71 Priorities and Allocations (Domestic Energy Supplies) (Jun 1996) Alternate I (Jun 1996)

(a) This Contract may be eligible for priorities and allocations support, as provided for by section 101(c) of the Defense Production Act of 1950, as amended by the Energy Policy and Conservation Act (Pub. L. 94-163, 42 U.S.C. 6201 *et seq*.) if its purpose is determined to be to maximize domestic energy supplies. Eligibility is dependent on an executive decision on a case-by-case basis with the decision being jointly made by the Departments of Energy and Commerce.

(b) DOE regulations regarding material allocations and priority performance under contracts or orders to maximize domestic energy supplies can be found at Part 216 of Title 10 of the Code of Federal Regulations (10 CFR Part 216).

(c) Additional guidance is provided by DOE Publication MA-0192, "Priorities and Allocations Support for Energy: Keeping Energy Programs on Schedule," dated August 1985, as it may from time to time be revised. Copies may be obtained by written request to: Department of Energy, Office of Scientific and Technical Information (OSTI), Post Office Box 62, Oak Ridge, Tennessee 37830.

(End of Clause)

I–68 952.215-70 Key Personnel (Dec 2000)

(a) The personnel listed below are considered essential to the work being performed under this Contract. Before removing, replacing, or diverting any of the listed or

specified personnel, the Contractor must:

(1) Notify the Contracting Officer reasonably in advance;

(2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this Contract; and

(3) obtain the Contracting Officer's written approval. Notwithstanding the foregoing, if the Contractor deems immediate removal or suspension of any member of its management team is necessary to fulfill its obligation to maintain satisfactory standards of employee competency, conduct, and integrity under the clause at 48 CFR 970.5203-3, Contractor's Organization, the Contractor may remove or suspend such person at once, although the Contractor must notify Contracting Officer prior to or concurrently with such action.

(b) The list of personnel may, with the consent of the contracting Parties, be amended from time to time during the course of the Contract to add or delete personnel.

(1) the Laboratory Director;
(2) all Deputy Laboratory Directors;
(3) all Associate Laboratory Directors;
(4) the Chief Financial Officer; and
(5) the Director, Environment, Safety, Health & Quality Division

(End of clause)

I–69 952.217-70 Acquisition of Real Property (Apr 1984)

(a) Notwithstanding any other provision of the Contract, the prior approval of the Contracting Officer shall be obtained when, in performance of this Contract, the Contractor acquires or proposes to acquire use of real property by:

(1) Purchase, on the Government's behalf or in the Contractor's own name, with title eventually vesting in the Government.

(2) Lease, and the Government assumes liability for, or will otherwise pay for the obligation under the lease as a reimbursable Contract cost.

(3) Acquisition of temporary interest through easement, license or permit, and the Government funds the entire cost of the temporary interest.

(b) Justification of and execution of any real property acquisitions shall be in accordance and compliance with directions provided by the Contracting Officer.

(c) The substance of this clause, including this paragraph (c), shall be included in any subcontract occasioned by this Contract under which property described in

paragraph (a) of this clause shall be acquired.
(End of clause)

I–70 952.223-75 Preservation of Individual Occupational Radiation Exposure Records (Apr 1984)

Individual occupational radiation exposure records generated in the performance of work under this Contract shall be subject to inspection by DOE and shall be preserved by the Contractor until disposal is authorized by DOE or at the option of the Contractor delivered to DOE upon completion or termination of the Contract. If the Contractor exercises the foregoing option, title to such records shall vest in DOE upon delivery.
(End of Clause)

I–71 952.224-70 Paperwork Reduction Act (Apr 1994)

(a) In the event that it subsequently becomes a contractual requirement to collect or record information calling either for answer to identical questions from 10 or more persons other than Federal employees, or information from Federal employees which is to be used for statistical compilations of general public interest, the Paperwork Reduction Act will apply to this Contract. No plan, questionnaire, interview guide, or other similar device for collecting information (whether repetitive or single-time) may be used without first obtaining clearance from the Office of Management and Budget (OMB).

(b) The Contractor shall request the required OMB clearance from the Contracting Officer before expending any funds or making public contacts for the collection of data. The authority to expend funds and to proceed with the collection of data shall be in writing by the Contracting Officer. The Contractor must plan at least 90 days for OMB clearance. Excessive delay caused by the Government which arises out of causes beyond the control and without the fault or negligence of the Contractor will be considered in accordance with the clause entitled "Excusable Delays," if such clause is applicable. If not, the period of performance may be extended pursuant to this clause if approved by the Contracting Officer.
(End of Clause)

I–72 952.226-74 Displaced Employee Hiring Preference (Jun 1997)

(a) Definition.

Eligible employee means a current or former employee of a Contractor or subcontractor employed at a Department of Energy Defense Nuclear Facility

(1) whose position of employment has been, or will be, involuntarily terminated (except if terminated for cause),

(2) who has also met the eligibility criteria contained in the Department of Energy guidance for Contractor work force restructuring, as may be

amended or supplemented from time to time, and

(3) who is qualified for a particular job vacancy with the Department or one of its Contractors with respect to work under its Contract with the Department at the time the particular position is available.

(b) Consistent with Department of Energy guidance for Contractor work force restructuring, as may be amended or supplemented from time to time, the Contractor agrees that it will provide a preference in hiring to an eligible employee to the extent practicable for work performed under this Contract.

(c) The requirements of this clause shall be included in subcontracts at any tier (except for subcontracts for commercial items pursuant to 41 U.S.C. 403) expected to exceed $500,000.

(End of Clause)

I–73 952.247-70 Foreign Travel (Dec 2000)

Contractor foreign travel shall be conducted pursuant to the requirements contained in DOE Order 551.1, Official Foreign Travel, or any subsequent version of the order in effect at the time of award.

(End of Clause)

I–74 952.250-70 Nuclear Hazards Indemnity Agreement (JUN 1996)

(a) *Authority*. This clause is incorporated into this Contract pursuant to the authority contained in subsection 170d. of the Atomic Energy Act of 1954, as amended (hereinafter called the Act.)

(b) *Definitions*. The definitions set out in the Act shall apply to this clause.

(c) *Financial protection*. Except as hereafter permitted or required in writing by DOE, the Contractor will not be required to provide or maintain, and will not provide or maintain at Government expense, any form of financial protection to cover public liability, as described in paragraph (d)(2) below. DOE may, however, at any time require in writing that the Contractor provide and maintain financial protection of such a type and in such amount as DOE shall determine to be appropriate to cover such public liability, provided that the costs of such financial protection are reimbursed to the Contractor by DOE.

(d)

(1) *Indemnification*. To the extent that the Contractor and other persons indemnified are not compensated by any financial protection permitted or required by DOE, DOE will indemnify the Contractor and other persons indemnified against

(i) claims for public liability as described in subparagraph (d)(2) of this clause; and

(ii) such legal costs of the Contractor and other persons indemnified as are approved by DOE, provided that DOE's liability, including such legal costs, shall not exceed the amount set forth in section 170e.(1)(B) of the Act in the aggregate for each nuclear incident or precautionary evacuation occurring within the United States or $100 million in the aggregate for each nuclear incident occurring outside the United States, irrespective of the number of persons indemnified in connection with this Contract.

(2) The public liability referred to in subparagraph (d)(1) of this clause is public liability as defined in the Act which

(i) arises out of or in connection with the activities under this Contract, including transportation; and

(ii) arises out of or results from a nuclear incident or precautionary evacuation, as those terms are defined in the Act.

(e)

(1) *Waiver of Defenses*. In the event of a nuclear incident, as defined in the Act, arising out of nuclear waste activities, as defined in the Act, the Contractor, on behalf of itself and other persons indemnified, agrees to waive any issue or defense as to charitable or Governmental immunity.

(2) In the event of an extraordinary nuclear occurrence which:

(i) Arises out of, results from, or occurs in the course of the construction, possession, or operation of a production or utilization facility; or

(ii) Arises out of, results from, or occurs in the course of transportation of source material, by-product material, or special nuclear material to or from a production or utilization facility; or

(iii) Arises out of or results from the possession, operation, or use by the Contractor or a subcontractor of a device utilizing special nuclear material or by-product material, during the course of the contract activity; or

(iv) Arises out of, results from, or occurs in the course of nuclear waste activities, the Contractor, on behalf of itself and other persons

indemnified, agrees to waive:

(A) Any issue or defense as to the conduct of the claimant (including the conduct of persons through whom the claimant derives its cause of action) or fault of persons indemnified, including, but not limited to:

1. Negligence;

2. Contributory negligence;

3. Assumption of risk; or

4. Unforeseeable intervening causes, whether involving the conduct of a third person or an act of God;

(B) Any issue or defense as to charitable or Governmental immunity; and

(C) Any issue or defense based on any statute of limitations, if suit is instituted within 3 years from the date on which the claimant first knew, or reasonably could have known, of his injury or change and the cause thereof. The waiver of any such issue or defense shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action. The waiver shall be judicially enforceable in accordance with its terms by the claimant against the person indemnified.

(v) The term *extraordinary nuclear occurrence* means an event which DOE has determined to be an extraordinary nuclear occurrence as defined in the Act. A determination of whether or not there has been an extraordinary nuclear occurrence will be made in accordance with the procedures in 10 CFR part 840.

(vi) For the purposes of that determination, "offsite" as that term is used in 10 CFR part 840 means away from "the Contract location" which phrase means any DOE facility, installation, or site at which contractual activity under this Contract is being carried on, and any Contractor-owned or controlled facility, installation, or site at which the Contractor is engaged in the performance of contractual activity under this Contract.

(3) The waivers set forth above:

(i) Shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action;

(ii) Shall be judicially enforceable in accordance with its terms by the claimant against the person indemnified;

(iii) Shall not preclude a defense based upon a failure to take reasonable steps to mitigate damages;

(iv) Shall not apply to injury or damage to a claimant or to a claimant's property which is intentionally sustained by the claimant or which results from a nuclear incident intentionally and wrongfully caused by the claimant;

(v) Shall not apply to injury to a claimant who is employed at the site of and in connection with the activity where the extraordinary nuclear occurrence takes place, if benefits therefor are either payable or required to be provided under any workmen's compensation or occupational disease law;

(vi) Shall not apply to any claim resulting from a nuclear incident occurring outside the United States;

(vii) Shall be effective only with respect to those obligations set forth in this clause and in insurance policies, contracts or other proof of financial protection; and

(viii) Shall not apply to, or prejudice the prosecution or defense of, any claim or portion of claim which is not within the protection afforded under

(A) the limit of liability provisions under subsection 170e. of the Act, and

(B) the terms of this agreement and the terms of insurance policies, contracts, or other proof of financial protection.

(f) *Notification and litigation of claims*. The Contractor shall give immediate written notice to DOE of any known action or claim filed or made against the Contractor or other person indemnified for public liability as defined in paragraph (d)(2). Except as otherwise directed by DOE, the Contractor shall furnish promptly to DOE, copies of all pertinent papers received by the Contractor or filed with respect to such actions or claims. DOE shall have the right to, and may collaborate with, the Contractor and any other person indemnified in the settlement or defense of any action or claim and shall have the right to

(1) require the prior approval of DOE for the payment of any claim that DOE may be required to indemnify hereunder; and

(2) appear through the Attorney General on behalf of the Contractor or other person indemnified in any action brought upon any claim that DOE may be required to indemnify hereunder, take charge of such action, and settle or defend any such action. If the settlement or defense of any such action or claim is undertaken by DOE, the Contractor or other person indemnified shall furnish all reasonable assistance in effecting a settlement or asserting a defense.

(g) *Continuity of DOE obligations*. The obligations of DOE under this clause shall not be affected by any failure on the part of the Contractor to fulfill its obligation under this Contract and shall be unaffected by the death, disability, or termination of existence of the Contractor, or by the completion, termination or expiration of this Contract.

(h) *Effect of other clauses*. The provisions of this clause shall not be limited in any way by, and shall be interpreted without reference to, any other clause of this Contract, including the clause entitled Contract Disputes, provided, however, that this clause shall be subject to the clauses entitled Covenant Against Contingent Fees, and Accounts, records, and inspection, and any provisions that are later added to this Contract as required by applicable Federal law, including statutes, executive orders and regulations, to be included in Nuclear Hazards Indemnity Agreements.

(i) *Civil penalties*. Reserved.

(j) *Criminal penalties*. Any individual director, officer, or employee of the Contractor or of its subcontractors and suppliers who are indemnified under the provisions of this clause are subject to criminal penalties, pursuant to 223(c) of the Act, for knowing and willful violation of the Atomic Energy Act of 1954, as amended, and applicable DOE nuclear safety-related rules, regulations or orders which violation results in, or, if undetected, would have resulted in a nuclear incident.

(k) *Inclusion in subcontracts*. The Contractor shall insert this clause in any subcontract which may involve the risk of public liability, as that term is defined in the Act and further described in paragraph (d)(2) above. However, this clause shall not be included in subcontracts in which the subcontractor is subject to Nuclear Regulatory Commission (NRC) financial protection requirements under section 170b. of the Act or NRC agreements of indemnification under section 170c. or k. of the Act for the activities under the subcontract.

(l) *Effective date*. This indemnity agreement shall be applicable with respect to nuclear incidents occurring on or after August 20, 1988.

(End of clause)

I–75 952.251-70 Contractor Employee Travel Discounts (Dec 2000)

(a) The Contractor shall take advantage of travel discounts offered to Federal Contractor employee travelers by AMTRAK, hotels, motels, or car rental companies, when use of such discounts would result in lower overall trip costs and the discounted services are reasonably available. Vendors providing these services may require the Contractor employee to furnish them a letter of identification signed by the authorized Contracting Officer.

(b) Contracted airlines. Contractors are not eligible for GSA contract city pair fares.

(c) Discount rail service. AMTRAK voluntarily offers discounts to Federal travelers on official business and sometimes extends those discounts to Federal Contractor employees.

(d) Hotels/motels. Many lodging providers extend their discount rates for Federal employees to Federal Contractor employees.

(e) Car rentals. The Military Traffic Management Command (MTMC) of the Department of Defense negotiates rate agreements with car rental companies that are available to Federal travelers on official business. Some car rental companies extend those discounts to Federal Contractor employees.

(f) Obtaining travel discounts.

(1) To determine which vendors offer discounts to Government Contractors, the Contractor may review commercial publications such as the Official Airline guides Official Traveler, Innovata, or National Telecommunications. The Contractor may also obtain this information from GSA contract Travel Management Centers or the Department of Defense's Commercial Travel Offices.

(2) The vendor providing the service may require the Government Contractor to furnish a letter signed by the Contracting Officer. The following illustrates a standard letter of identification.

OFFICIAL AGENCY LETTERHEAD

TO: Participating Vendor

SUBJECT: OFFICIAL TRAVEL OF GOVERNMENT CONTRACTOR

(FULL NAME OF TRAVELER), the bearer of this letter is an employee of (COMPANY NAME) which has a contract with this agency under Government contract (CONTRACT NUMBER). During the period of the contract (GIVE DATES), AND WITH THE APPROVAL OF THE CONTRACT VENDOR, the employee is eligible and authorized to use available travel discount rates in accordance with Government contracts and/or agreements. Government Contract City Pair fares are not available to Contractors.

SIGNATURE, Title and telephone number of Contracting Officer
(End of Clause)

I–76 970.5203-1 Management Controls (Dec 2000) (DEVIATION)

(a)

(1) The Contractor shall be responsible for maintaining, as an integral part of its organization, effective systems of management controls for both administrative and programmatic functions. Management controls comprise the plan of organization, methods, and procedures adopted by management to reasonably ensure that: the mission and functions assigned to the Contractor are properly executed; efficient and effective operations are promoted; resources are safeguarded against waste, loss, mismanagement, unauthorized use, or misappropriation; all encumbrances and costs that are incurred under the Contract and fees that are earned are in compliance with applicable clauses and other current terms, conditions, and intended purposes; all collections accruing to the Contractor in connection with the work under this Contract, expenditures, and all other transactions and assets are properly recorded, managed, and reported; and financial, statistical, and other reports necessary to maintain accountability and managerial control are accurate, reliable, and timely.

(2) The systems of controls employed by the Contractor shall be documented and satisfactory to DOE.

(3) Such systems shall be an integral part of the Contractor's management functions, including defining specific roles and responsibilities for each level of management, and holding employees accountable for the adequacy of the management systems and controls in their areas of assigned responsibility.

(4) The Contractor shall, as part of the internal audit program required elsewhere in this Contract, periodically review the management systems and controls employed in programs and administrative areas to ensure that they are adequate to provide reasonable assurance that the objectives of the systems are being accomplished and that these systems and controls are working effectively.

(b) The Contractor shall be responsible for maintaining, as a part of its operational responsibilities, a baseline quality assurance program that implements documented performance, quality standards, and control and assessment techniques.

(c) On an annual basis, the Contractor, through an officer at a level above the Director of Pacific Northwest National Laboratory, shall submit an assurance to the Contracting Officer that the system of management controls, including all systems revised in accordance with the clause of this Contract entitled, "Application of DOE Contractor Requirements Documents," is adequate to assure that the objectives of the management system are being accomplished and that the systems and controls are effective and efficient.

(End of Clause)

I–77 970.5203-2 Performance Improvement and Collaboration (Dec 2000)

(a) The Contractor agrees that it shall affirmatively identify, evaluate, and institute practices, where appropriate, that will improve performance in the areas of environmental and health, safety, scientific and technical, security, business and administrative, and any other areas of performance in the management and operation of the Contract. This may entail the alteration of existing practices or the institution of new procedures to more effectively or efficiently perform any aspect of Contract performance or reduce overall cost of operation under the Contract. Such improvements may result from changes in organization, simplification of systems while retaining necessary controls, or any other approaches consistent with the statement of work and performance measures of this Contract.

(b) The Contractor agrees to work collaboratively with the Department, all other management and operating, DOE major facilities management Contractors and affiliated Contractors which manage or operate DOE sites or facilities for the following purposes: (i) to exchange information generally, (ii) to evaluate concepts that may be of benefit in resolving common issues, in confronting common problems, or in reducing costs of operations, and (iii) to otherwise identify and implement DOE-complex-wide management improvements discussed in paragraph (a). In doing so, it shall also affirmatively provide information relating to its management improvements to such Contractors, including lessons learned, subject to security considerations and the protection of data proprietary to third Parties.

(c) The Contractor may consult with the Contracting Officer in those instances in which improvements being considered pursuant to paragraph (a) involve the cooperation of the DOE. The Contractor may request the assistance of the Contracting Officer in the communication of the success of improvements to other management and operating Contractors in accordance with paragraph (b) of this clause.

(d) The Contractor shall notify the Contracting Officer and seek approval where necessary to fulfill its obligations under the Contract. Compliance with this clause in no way alters the obligations of the Contractor under any other provision of this Contract.

(End of Clause)

I–78 970.5203-3 Contractor's Organization (Dec 2000) (DEVIATION)

(a) Organization chart. As promptly as possible after the execution of this Contract, the Contractor shall furnish to the Contracting Officer a chart showing the names, duties, and organization of key personnel (see 48 CFR 952.215-70) to be employed in connection with the work, and shall furnish supplemental information to reflect any changes as they occur.

(b) Supervisory representative of Contractor. Unless otherwise directed by the Contracting Officer, a competent full-time resident supervisory representative of the Contractor satisfactory to the Contracting Officer shall be in charge of the work at the site, and any work off-site, at all times.

(c) Control of employees. The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, and integrity and shall be responsible for taking such disciplinary action with respect to its employees as may be necessary.

(d) Standards and procedures. The Contractor shall establish such standards and procedures as are necessary to implement the requirements set forth in 48 CFR 970.0371. Such standards and procedures shall be subject to the approval of the Contracting Officer.

(End of Clause)

I–79 970.5204-1 Counterintelligence (Dec 2000)

(a) The Contractor shall take all reasonable precautions in the work under this Contract to protect DOE programs, facilities, technology, personnel, unclassified sensitive information and classified matter from foreign intelligence threats and activities conducted for Governmental or industrial purposes, in accordance with DOE Order 5670.3, Counterintelligence Program; Executive Order 12333, U.S. Intelligence Activities; and other pertinent national and Departmental Counterintelligence requirements.

(b) The Contractor shall appoint a qualified employee(s) to function as the Contractor Counterintelligence Officer. The Contractor Counterintelligence Officer will be responsible for conducting defensive Counterintelligence briefings and debriefings of employees traveling to foreign countries or interacting with foreign nationals; providing thoroughly documented written reports relative to targeting, suspicious activity and other matters of Counterintelligence interest; immediately

reporting targeting, suspicious activity and other Counterintelligence concerns to the DOE Headquarters Counterintelligence Division; and providing assistance to other elements of the U.S. Intelligence Community as stated in the aforementioned Executive Order, the DOE Counterintelligence Order, and other pertinent national and Departmental Counterintelligence requirements.

(End of Clause)

I–80 970.5204-2 Laws, Regulations, and DOE Directives (Dec 2000) (DEVIATION)

(a) In performing work under this Contract, the Contractor shall comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency. A List of Applicable Laws and regulations (List A) may be appended to this Contract for information purposes. Omission of any applicable law or regulation from List A does not affect the obligation of the Contractor to comply with such law or regulation pursuant to this paragraph.

(b) The Contractor will perform the work of this Contract in accordance with each of the Contractor Requirements Documents (CRDs) appended to this Contract as "Appendix D," and "Appendix F" until such time as the Contracting Officer approves the substitution of an alternative procedure, standard, system of oversight, or assessment mechanism resulting from the process described in the clause of this Contract entitled, "Application of DOE Contractor Requirements Documents."

(c) Except as otherwise directed by the Contracting Officer, the Contractor shall procure all necessary permits or licenses required for the performance of work under this Contract.

(d) Regardless of the performer of the work, the Contractor is responsible for compliance with the requirements of this clause. The Contractor is responsible for flowing down the requirements of this clause to subcontracts at any tier to the extent necessary to ensure the Contractor's compliance with the requirements.

(End of Clause)

I–81 970.5204-3 Access to and Ownership of Records (Dec 2000)

(a) Government-owned records. Except as provided in paragraph (b) of this clause, all records acquired or generated by the Contractor in its performance of this Contract shall be the property of the Government and shall be delivered to the Government or otherwise disposed of by the Contractor either as the Contracting Officer may from time to time direct during the progress of the work or, in any event, as the Contracting Officer shall direct upon completion or termination of the Contract.

(b) Contractor-owned records. The following records are considered the property of the Contractor and are not within the scope of paragraph (a) of this clause.

(1) Employment-related records (such as workers' compensation files; employee relations records, records on salary and employee benefits; drug testing records, labor negotiation records; records on ethics, employee concerns, and other employee related investigations conducted under an expectation of confidentiality; employee assistance program records; and personnel and medical/ health-related records and similar files), and non-employee patient medical/health related records, except for those records described by the Contract as being maintained in Privacy Act systems of records.

(2) Confidential Contractor financial information, and correspondence between the Contractor and other segments of the Contractor located away from the DOE facility (i.e., the Contractor's corporate headquarters);

(3) Records relating to any procurement action by the Contractor, except for records that under 48 CFR 970.5232-3, Accounts, Records, and Inspection, are described as the property of the Government; and

(4) Legal records, including legal opinions, litigation files, and documents covered by the attorney-client and attorney work product privileges; and

(5) The following categories of records maintained pursuant to the technology transfer clause of this Contract:

(i) Executed license agreements, including exhibits or appendices containing information on royalties, royalty rates, other financial information, or commercialization plans, and all related documents, notes and correspondence.

(ii) The Contractor's protected Cooperative Research and Development Agreement (CRADA) information and appendices to a CRADA that contain licensing terms and conditions, or royalty or royalty rate information.

(iii) Patent, copyright, mask work, and trademark application files and related Contractor invention disclosures, documents and correspondence, where the Contractor has elected rights or has permission to assert rights and has not relinquished such rights or turned such rights over to the Government.

(c) Contract completion or termination. In the event of completion or termination of this Contract, copies of any of the Contractor-owned records identified in paragraph (b) of this clause, upon the request of the Government, shall be

delivered to DOE or its designees, including successor Contractors. Upon delivery, title to such records shall vest in DOE or its designees, and such records shall be protected in accordance with applicable federal laws (including the Privacy Act), as appropriate.

(d) Inspection, copying, and audit of records. All records acquired or generated by the Contractor under this Contract in the possession of the Contractor, including those described at paragraph (b) of this clause, shall be subject to inspection, copying, and audit by the Government or its designees at all reasonable times, and the Contractor shall afford the Government or its designees reasonable facilities for such inspection, copying, and audit; provided, however, that upon request by the Contracting Officer, the Contractor shall deliver such records to a location specified by the Contracting Officer for inspection, copying, and audit. The Government or its designees shall use such records in accordance with applicable federal laws (including the Privacy Act), as appropriate.

(e) Applicability. Paragraphs (b), (c), and (d) of this clause apply to all records without regard to the date or origination of such records.

(f) Records retention standards. Special records retention standards, described at DOE Order 200.1, Information Management Program (version in effect on effective date of Contract), are applicable for the classes of records described therein, whether or not the records are owned by the Government or the Contractor. In addition, the Contractor shall retain individual radiation exposure records generated in the performance of work under this Contract until DOE authorizes disposal. The Government may waive application of these record retention schedules, if, upon termination or completion of the Contract, the Government exercises its right under paragraph (c) of this clause to obtain copies and delivery of records described in paragraphs (a) and (b) of this clause.

(g) Subcontracts. The Contractor shall include the requirements of this clause in all subcontracts that are of a cost-reimbursement type if any of the following factors is present:

(1) The value of the subcontract is greater than $2 million (unless specifically waived by the Contracting Officer);

(2) The Contracting Officer determines that the subcontract is, or involves, a critical task related to the Contract; or

(3) The subcontract includes 48 CFR 970.5223-1, Integration of Environment, Safety, and Health into Work Planning and Execution, or similar clause.

(End of Clause)

I–82 970.5208-1 Printing (Dec 2000)

(a) To the extent that duplicating or printing services may be required in the performance of this Contract, the Contractor shall provide or secure such services in accordance with the Government Printing and Binding Regulations, Title 44 of the U.S. Code, and DOE Directives relative thereto.

(b) The term "Printing" includes the following processes: Composition, platemaking, presswork, binding, microform publishing, or the end items produced by such processes. Provided, however, that performance of a requirement under this Contract involving the duplication of less than 5,000 copies of a single page, or no more than 25,000 units in the aggregate of multiple pages, will not be deemed to be printing.

(c) Printing services not obtained in compliance with this guidance shall result in the cost of such printing being disallowed.

(d) The Contractor shall include the substance of this clause in all subcontracts hereunder which require printing (as that term is defined in Title I of the U.S. Government Printing and Binding Regulations).

(End of Clause)

I–83 970.5215-1 Total Available Fee: Base Fee Amount and Performance Fee Amount (Dec 2000) Alternate II (Dec 2000) Alternate III (DEC 2000)

(a) Total available fee. Total available fee, consisting of a base fee amount (which is zero) and a performance fee amount (consisting of an incentive fee component for objective performance requirements, an award fee component for subjective performance requirements, or both) determined in accordance with the provisions of this clause, is available for payment in accordance with the clause of this Contract entitled, "Payments and advances."

(b) Fee Negotiations. Prior to the beginning of each fiscal year under this Contract, or other appropriate period as mutually agreed upon and, if exceeding one year, approved by the Senior Procurement Executive, or designee, the Contracting Officer and Contractor shall enter into negotiation of the requirements for the year or appropriate period, including the evaluation areas and individual requirements subject to incentives, the total available fee, and the allocation of fee. The Contracting Officer shall modify this Contract at the conclusion of each negotiation to reflect the negotiated requirements, evaluation areas and individual requirements subject to incentives, the total available fee, and the allocation of fee. In the event the Parties fail to agree on the requirements, the evaluation areas and individual requirements subject to incentives, the total available fee, or the allocation of fee, a unilateral determination will be made by the Contracting Officer. The total available fee amount shall be allocated to a twelve month cycle composed of one or more evaluation periods, or such longer period as may be mutually agreed to between the Parties and approved by the Senior Procurement Executive, or designee.

(c) Determination of Total Available Fee Amount Earned.

(1) The Government shall, at the conclusion of each specified evaluation period, evaluate the Contractor's performance of all requirements, including performance based incentives completed during the period, and determine the total available fee amount earned. At the Contracting Officer's discretion, evaluation of incentivized performance may occur at the scheduled completion of specific incentivized requirements.

(2) The DOE Operations/Field Office Manager, or designee, will be the Manager of the DOE Richland Operations Office. The Contractor agrees that the determination as to the total available fee earned is a unilateral determination made by the DOE Operations/Field Office Manager, or designee.

(3) The evaluation of Contractor performance shall be in accordance with the Performance Evaluation and Measurement Plan(s) described in subparagraph (d) of this clause unless otherwise set forth in the Contract. The Contractor shall be promptly advised in writing of the fee determination, and the basis of the fee determination. In the event that the Contractor's performance is considered to be less than the level of performance set forth in the Statement of Work, as amended to include the current Work Authorization Directive or similar document, for any Contract requirement, it will be considered by the DOE Operations/Field Office Manager, or designee, who may at his/her discretion adjust the fee determination to reflect such performance. Any such adjustment shall be in accordance with the clause entitled, "Conditional Payment of Fee, Profit, or Incentives" if contained in the Contract.

(4) Award fee not earned during the evaluation period shall not be allocated to future evaluation periods.

(d) Performance Evaluation and Measurement Plan(s). To the extent not set forth elsewhere in the Contract:

(1) The Government shall establish a Performance Evaluation and Measurement Plan(s) upon which the determination of the total available fee amount earned shall be based. The Performance Evaluation and Measurement Plan(s) will address all of the requirements of Contract performance specified in the Contract directly or by reference. A copy of the Performance Evaluation and Measurement Plan(s) shall be provided to the Contractor:

(i) prior to the start of an evaluation period if the requirements, evaluation areas, specific incentives, amount of fee, and allocation

of fee to such evaluation areas and specific incentives have been mutually agreed to by the Parties; or

(ii) not later than thirty days prior to the scheduled start date of the evaluation period, if the requirements, evaluation areas, specific incentives, amount of fee, and allocation of fee to such evaluation areas and specific incentives have been unilaterally established by the Contracting Officer.

(2) The Performance Evaluation and Measurement Plan(s) will set forth the criteria upon which the Contractor will be evaluated relating to any technical, schedule, management, and/or cost objectives selected for evaluation. Such criteria should be objective, but may also include subjective criteria. The Plan(s) shall also set forth the method by which the total available fee amount will be allocated and the amount earned determined.

(3) The Performance Evaluation and Measurement Plan(s) may, consistent with the Contract statement of work, be revised during the period of performance. The Contracting Officer shall notify the Contractor:

(i) of such unilateral changes at least ninety calendar days prior to the end of the affected evaluation period and at least thirty calendar days prior to the effective date of the change;

(ii) of such bilateral changes at least sixty calendar days prior to the end of the affected evaluation period; or

(iii) if such change, whether unilateral or bilateral, is urgent and high priority, at least thirty calendar days prior to the end of the evaluation period.

(e) Schedule for total available fee amount earned determinations. The DOE Operations/Field Office Manager, or designee, shall issue the final total available fee amount earned determination in accordance with: the schedule set forth in the Performance Evaluation and Measurement Plan(s); or as otherwise set forth in this Contract. However, a determination must be made within sixty calendar days after the receipt by the Contracting Officer of the Contractor's self-assessment, if one is required or permitted by paragraph (f) of this clause, or seventy calendar days after the end of the evaluation period, whichever is later, or a longer period if the Contractor and Contracting Officer agree. If the Contracting Officer evaluates the Contractor's performance of specific requirements on their completion, the payment of any earned fee amount must be made within seventy calendar days (or such other time period as mutually agreed to between the Contracting Officer and the Contractor) after such completion. If the determination is delayed beyond that date, the Contractor shall be entitled to interest on the determined total available

fee amount earned at the rate established by the Secretary of the Treasury under section 12 of the Contract Disputes Act of 1978 *(41 U.S.C. 611)* that is in effect on the payment date. This rate is referred to as the "Renegotiation Board Interest Rate," and is published in the Federal Register semiannually on or about January 1 and July 1. The interest on any late total available fee amount earned determination will accrue daily and be compounded in 30-day increments inclusive from the first day after the schedule determination date through the actual date the determination is issued. That is, interest accrued at the end of any 30-day period will be added to the determined amount of fee earned and be subject to interest if not paid in the succeeding 30-day period.

(f) Contractor self-assessment. Following each evaluation period, the Contractor shall submit a self-assessment within 30 calendar days after the end of the period (or as otherwise agreed between the Parties). This self-assessment shall address both the strengths and weaknesses of the Contractor's performance during the evaluation period. Where deficiencies in performance are noted, the Contractor shall describe the actions planned or taken to correct such deficiencies and avoid their recurrence. The DOE Operations/Field Office Manager, or designee, will review the Contractor's self-assessment, if submitted, as part of its independent evaluation of the Contractor's management during the period. A self-assessment, in and of itself may not be the only basis for the award fee determination.

(End of Clause)

I–84 970.5215-3 Conditional Payment of Fee, Profit, or Incentives (Dec 2000) Alternate I (Dec 2000)

In order for the Contractor to receive all otherwise earned fee, fixed fee, profit, or share of cost savings under the Contract in an evaluation period, the Contractor must meet the minimum requirements in paragraphs (a) and (b) of this clause, and if Alternate I is applicable, (a) through (d) of this clause. If the Contractor does not meet the minimum requirements, the DOE Operations/Field Office Manager or designee may make a unilateral determination to reduce the evaluation period's otherwise earned fee, fixed fee, profit or share of cost savings as described in the following paragraphs of this clause.

(a) Minimum requirements for Environment, Safety & Health (ES&H) Program. The Contractor shall develop, obtain DOE approval of, and implement a Safety Management System in accordance with the provisions of the clause entitled, "Integration of Environment, Safety and Health into Work Planning and Execution," if included in the Contract, or as otherwise agreed to with the Contracting Officer. The minimum performance requirements of the system will be set forth in the approved Safety Management System, or similar document. If the Contractor fails to obtain approval of the Safety Management System or fails to achieve the minimum performance requirements of the system during the evaluation period, the DOE Operations/Field Office Manager or designee, at his/her sole discretion, may reduce any otherwise earned fees, fixed fee, profit or

share of cost savings for the evaluation period by an amount up to the amount earned.

(b) Minimum requirements for catastrophic event. If, in the performance of this Contract, there is a catastrophic event (such as a fatality, or a serious workplace-related injury or illness to one or more Federal, Contractor, or subcontractor employees or the general public, loss of control over classified or special nuclear material, or significant damage to the environment), the DOE Operations/Field Office Manager or designee may reduce any otherwise earned fee for the evaluation period by an amount up to the amount earned. In determining any diminution of fee, fixed fee, profit, or share of cost savings resulting from a catastrophic event, the DOE Operations/Field Office Manager or designee will consider whether willful misconduct and/or negligence contributed to the occurrence and will take into consideration any mitigating circumstances presented by the Contractor or other sources.

(c) Minimum requirements for specified level of performance.

(1) At a minimum the Contractor must perform the following:

(i) the requirements with specific incentives at the level of performance set forth in the Statement of Work, Work Authorization Directive, or similar document unless an otherwise minimal level of performance has been established in the specific incentive;

(ii) all of the performance requirements directly related to requirements specifically incentivized at a level of performance such that the overall performance of these related requirements is at an acceptable level; and

(iii) all other requirements at a level of performance such that the total performance of the Contract is not jeopardized.

(2) The evaluation of the Contractor's achievement of the level of performance shall be unilaterally determined by the Contracting Officer. To the extent that the Contractor fails to achieve the minimum performance levels specified in the Statement of Work, Work Authorization Directive, or similar document, during the evaluation period, the DOE Operations/Field Office Manager, or designee, may reduce any otherwise earned fee, fixed fee, profit, or shared net savings for the evaluation period. Such reduction shall not result in the total of earned fee, fixed fee, profit, or shared net savings being less than 25% of the total available fee amount. Such 25% shall include base fee, if any.

(d) Minimum requirements for cost performance.

(1) Requirements incentivized by other than cost incentives must be performed within their specified cost constraint and must not adversely impact the costs of performing unrelated activities.

(2) The performance of requirements with a specific cost incentive must not adversely impact the costs of performing unrelated requirements.

(3) The Contractor's performance within the stipulated cost performance levels for the evaluation period shall be determined by the Contracting Officer. To the extent the Contractor fails to achieve the stipulated cost performance levels, the DOE Operations/Field Office Manager, or designee, at his/her sole discretion, may reduce in whole or in part any otherwise earned fee, fixed fee, profit, or shared net savings for the evaluation period. Such reduction shall not result in the total of earned fee, fixed fee, profit or shared net savings being less than 25% of the total available fee amount. Such 25% shall include base fee, if any.

(End of Clause)

I–85 970.5222-1 Collective Bargaining Agreements Management and Operating Contracts (Dec 2000)

When negotiating collective bargaining agreements applicable to the work force under this Contract, the Contractor shall use its best efforts to ensure such agreements contain provisions designed to assure continuity of services. All such agreements entered into during the Contract period of performance should provide that grievances and disputes involving the interpretation or application of the agreement will be settled without resorting to strike, lockout, or other interruption of normal operations. For this purpose, each collective bargaining agreement should provide an effective grievance procedure with arbitration as its final step, unless the Parties mutually agree upon some other method of assuring continuity of operations. As part of such agreements, management and labor should agree to cooperate fully with the Federal Mediation and Conciliation Service. The Contractor shall include the substance of this clause in any subcontracts for protective services or other services performed on the DOE-owned site, which will affect the continuity of operation of the facility.

(End of Clause)

I–86 970.5222-2 Overtime Management (Dec 2000)

(a) The Contractor shall maintain adequate internal controls to ensure that employee overtime is authorized only if cost effective and necessary to ensure performance of work under this Contract.

(b) The Contractor shall notify the Contracting Officer when in any given year it is likely that overtime usage as a percentage of payroll may exceed 4%.

(c) The Contracting Officer may require the submission, for approval, of a formal annual overtime control plan whenever Contractor overtime usage as a percentage of payroll has exceeded, or is likely to exceed, 4%, or if the Contracting Officer otherwise deems overtime expenditures excessive. The plan shall include, at a minimum:

(1) An overtime premium fund (maximum dollar amount);

(2) Specific controls for casual overtime for non-exempt employees;

(3) Specific parameters for allowability of exempt overtime;

(4) An evaluation of alternatives to the use of overtime; and

(5) Submission of a semi-annual report that includes for exempt and non-exempt employees:

(i) Total cost of overtime;

(ii) Total cost of straight time;

(iii) Overtime cost as a percentage of straight-time cost;

(iv) Total overtime hours;

(v) Total straight-time hours; and

(vi) Overtime hours as a percentage of straight-time hours.

(End of Clause)

I–87 970.5223-1 Integration of Environment, Safety, and Health into Work Planning and Execution (Dec 2000)

(a) For the purposes of this clause,

(1) Safety encompasses environment, safety and health, including pollution prevention and waste minimization; and

(2) Employees include subcontractor employees.

(b) In performing work under this Contract, the Contractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The Contractor shall exercise a degree of care commensurate with the work and the associated hazards. The Contractor shall ensure that management of environment, safety and health (ES&H) functions and activities becomes an integral but visible

part of the Contractor's work planning and execution processes. The Contractor shall, in the performance of work, ensure that:

(1) Line management is responsible for the protection of employees, the public, and the environment. Line management includes those Contractor and subcontractor employees managing or supervising employees performing work.

(2) Clear and unambiguous lines of authority and responsibility for ensuring (ES&H) are established and maintained at all organizational levels.

(3) Personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.

(4) Resources are effectively allocated to address ES&H, programmatic, and operational considerations. Protecting employees, the public, and the environment is a priority whenever activities are planned and performed.

(5) Before work is performed, the associated hazards are evaluated and an agreed-upon set of ES&H standards and requirements are established which, if properly implemented, provide adequate assurance that employees, the public, and the environment are protected from adverse consequences.

(6) Administrative and engineering controls to prevent and mitigate hazards are tailored to the work being performed and associated hazards. Emphasis should be on designing the work and/or controls to reduce or eliminate the hazards and to prevent accidents and unplanned releases and exposures.

(7) The conditions and requirements to be satisfied for operations to be initiated and conducted are established and agreed-upon by DOE and the Contractor. These agreed-upon conditions and requirements are requirements of the Contract and binding upon the Contractor. The extent of documentation and level of authority for agreement shall be tailored to the complexity and hazards associated with the work and shall be established in a Safety Management System.

(c) The Contractor shall manage and perform work in accordance with a documented Safety Management System (System) that fulfills all conditions in paragraph (b) of this clause at a minimum. Documentation of the System shall describe how the Contractor will:

(1) Define the scope of work;

(2) Identify and analyze hazards associated with the work;

(3) Develop and implement hazard controls;

(4) Perform work within controls; and

(5) Provide feedback on adequacy of controls and continue to improve safety management.

(d) The System shall describe how the Contractor will establish, document, and implement safety performance objectives, performance measures, and commitments in response to DOE program and budget execution guidance while maintaining the integrity of the System. The System shall also describe how the Contractor will measure system effectiveness.

(e) The Contractor shall submit to the Contracting Officer documentation of its System for review and approval. Dates for submittal, discussions, and revisions to the System will be established by the Contracting Officer. Guidance on the preparation, content, review, and approval of the System will be provided by the Contracting Officer. On an annual basis, the Contractor shall review and update, for DOE approval, its safety performance objectives, performance measures, and commitments consistent with and in response to DOE's program and budget execution guidance and direction. Resources shall be identified and allocated to meet the safety objectives and performance commitments as well as maintain the integrity of the entire System. Accordingly, the System shall be integrated with the Contractor's business processes for work planning, budgeting, authorization, execution, and change control.

(f) The Contractor shall comply with, and assist the Department of Energy in complying with, ES&H requirements of all applicable laws and regulations, and applicable directives identified in the clause of this Contract entitled "Laws, Regulations, and DOE Directives." The Contractor shall cooperate with Federal and non-Federal agencies having jurisdiction over ES&H matters under this Contract.

(g) The Contractor shall promptly evaluate and resolve any noncompliance with applicable ES&H requirements and the System. If the Contractor fails to provide resolution or if, at any time, the Contractor's acts or failure to act causes substantial harm or an imminent danger to the environment or health and safety of employees or the public, the Contracting Officer may issue an order stopping work in whole or in part. Any stop work order issued by a Contracting Officer under this clause (or issued by the Contractor to a subcontractor in accordance with paragraph (i) of this clause) shall be without prejudice to any other legal or contractual rights of the Government. In the event that the Contracting Officer issues a stop work order, an order authorizing the resumption of the work may be issued at the discretion of the Contracting Officer. The Contractor shall not be entitled to an extension of time or additional fee or damages by reason of, or in connection with, any work stoppage ordered in accordance with this clause.

(h) Regardless of the performer of the work, the Contractor is responsible for compliance with the ES&H requirements applicable to this Contract. The Contractor is responsible for flowing down the ES&H requirements applicable to this Contract to subcontracts at any tier to the extent necessary to ensure the Contractor's compliance with the requirements.

(i) The Contractor shall include a clause substantially the same as this clause in subcontracts involving complex or hazardous work on site at a DOE-owned or-leased facility. Such subcontracts shall provide for the right to stop work under the conditions described in paragraph (g) of this clause. Depending on the complexity and hazards associated with the work, the Contractor may choose not to require the subcontractor to submit a Safety Management System for the Contractor's review and approval.

(End of Clause)

I–88 970.5223-2 Acquisition and Use of Environmentally Preferable Products and Services (Dec 2000)

(a) In the performance of this Contract, the Contractor shall comply with the requirements of the following issuances:

(1) Executive Order 13101 of September 14, 1998, entitled "Greening the Government Through Waste Prevention, Recycling and Federal Acquisition."

(2) Section 6002 of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended *(42 U.S.C. 6962,* Pub. L. 94-580, 90 Stat. 2822),

(3) Title 40 of the Code of Federal Regulations, Subchapter I, Part 247 (Comprehensive Guidelines for the Procurement of Products Containing Recovered Materials) and such other Subchapter I Parts or Comprehensive Procurement Guidelines as the Environmental Protection Agency may issue from time to time as guidelines for the procurement of products that contain recovered/recycled materials,

(4) "U.S. Department of Energy Affirmative Procurement Program for Products Containing Recovered Materials" and related guidance document(s), as they are identified in writing by the Department.

(b) The Contractor shall prepare and submit reports on matters related to the use of environmentally preferable products and services from time to time in accordance with written direction (e.g., in a specified format) from the Contracting Officer.

(c) In complying with the requirements of paragraph (a) of this clause, the Contractor shall coordinate its concerns and seek implementing guidance on Federal and Departmental policy, plans, and program guidance with the DOE recycling point

of contact, who shall be identified by the Contracting Officer. Reports required pursuant to paragraph (b) of this clause, shall be submitted through the DOE recycling point of contact.

(End of Clause)

I–89 970.5223-4 Workplace Substance Abuse Programs at DOE Sites (Dec 2000)

(a) Program Implementation. The Contractor shall, consistent with 10 CFR part 707, Workplace Substance Abuse Programs at DOE Sites, incorporated herein by reference with full force and effect, develop, implement, and maintain a workplace substance abuse program.

(b) Remedies. In addition to any other remedies available to the Government, the Contractor's failure to comply with the requirements of 10 CFR part 707 or to perform in a manner consistent with its approved program may render the Contractor subject to: the suspension of Contract payments, or, where applicable, a reduction in award fee; termination for default; and suspension or debarment.

(c) Subcontracts.

(1) The Contractor agrees to notify the Contracting Officer reasonably in advance of, but not later than 30 days prior to, the award of any subcontract the Contractor believes may be subject to the requirements of 10 CFR part 707.

(2) The DOE prime Contractor shall require all subcontracts subject to the provisions of 10 CFR part 707 to agree to develop and implement a workplace substance abuse program that complies with the requirements of 10 CFR part 707, Workplace Substance Abuse Programs at DOE Sites, as a condition for award of the subcontract. The DOE prime Contractor shall review and approve each subcontractor's program, and shall periodically monitor each subcontractor's implementation of the program for effectiveness and compliance with 10 CFR part 707.

(3) The Contractor agrees to include, and require the inclusion of, the requirements of this clause in all subcontracts, at any tier, that are subject to the provisions of 10 CFR part 707.

(End of clause)

I–90 970.5226-1 Diversity Plan (Dec 2000) (DEVIATION)

The Contractor has submitted a Diversity Plan to the Contracting Officer and the Contracting Officer has approved it. The Contractor shall review its Plan annually and submit an update to its Plan as necessary, or upon request of the Contracting Officer. The Plan shall include innovative strategies for increasing opportunities to fully use the talents and capabilities of a diverse work force. The Plan shall address, at a minimum, the Contractor's approach for promoting diversity through (1) the Contractor's work force, (2)

educational outreach, (3) community involvement and outreach, (4) subcontracting, (5) economic development (including technology transfer), and (6) the prevention of profiling based on race or national origin.

(End of Clause)

I–91 970.5226-2 Workforce Restructuring under Section 3161 of the National Defense Authorization Act for Fiscal Year 1993 (Dec 2000)

(a) Consistent with the objectives of Section 3161 of the National Defense Authorization Act for Fiscal Year 1993, *42 U.S.C. 7274h,* in instances where the Department of Energy has determined that a change in workforce at a Department of Energy Defense Nuclear Facility is necessary, the Contractor agrees to (1) comply with the Department of Energy Workforce Restructuring Plan for the facility, if applicable, and (2) use its best efforts to accomplish workforce restructuring or displacement so as to mitigate social and economic impacts.

(b) The requirements of this clause shall be included in subcontracts at any tier (except subcontracts for commercial items pursuant to *41 U.S.C. 403)* expected to exceed $500,000.

(End of Clause)

I–92 970.5226-3 Community Commitment (Dec 2000)

It is the policy of the DOE to be a constructive partner in the geographic region in which DOE conducts its business. The basic elements of this policy include: (1) Recognizing the diverse interests of the region and its stakeholders, (2) engaging regional stakeholders in issues and concerns of mutual interest, and (3) recognizing that giving back to the community is a worthwhile business practice. Accordingly, the Contractor agrees that its business operations and performance under the Contract will be consistent with the intent of the policy and elements set forth above.

(End of Clause)

I–93 970.5227-2 Rights in Data-Technology Transfer (Dec 2000)

(a) Definitions.

(1) Computer data bases, as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

(2) Computer software, as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the computer

program to be produced, created, or compiled. The term does not include computer data bases.

(3) Data, as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term "data" does not include data incidental to the administration of this Contract, such as financial, administrative, cost and pricing, or management information.

(4) Limited rights data, as used in this clause, means data, other than computer software, developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. The Government's rights to use, duplicate, or disclose limited rights data are as set forth in the Limited Rights Notice of paragraph (g) of this clause.

(5) Restricted computer software, as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of any such computer software. The Government's rights to use, duplicate, or disclose restricted computer software are as set forth in the Restricted Rights Notice of subparagraph (h) of this clause.

(6) Technical data, as used in this clause, means recorded data, regardless of form or characteristic, that are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.

(7) Unlimited rights, as used in this clause, means the rights of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, including by electronic means, and perform publicly and display publicly, in any manner, including by electronic means, and for any purpose whatsoever, and to have or permit others to do so.

(b) Allocation of Rights.

(1) The Government shall have:

(i) Ownership of all technical data and computer software first produced in the performance of this Contract;

(ii) Unlimited rights in technical data and computer software specifically used in the performance of this Contract, except as provided herein regarding copyright, limited rights data, or

restricted computer software, and except for data subject to the withholding provisions for protected Cooperative Research and Development Agreement (CRADA) information in accordance with Technology Transfer actions under this Contract, or other data specifically protected by statute for a period of time or, where, approved by DOE, appropriate instances of the DOE Work for Others Program;

(iii) The right to inspect technical data and computer software first produced or specifically used in the performance of this Contract at all reasonable times. The Contractor shall make available all necessary facilities to allow DOE personnel to perform such inspection;

(iv) The right to have all technical data and computer software first produced or specifically used in the performance of this Contract delivered to the Government or otherwise disposed of by the Contractor, either as the Contracting Officer may from time to time direct during the progress of the work or in any event as the Contracting Officer shall direct upon completion or termination of this Contract. The Contractor agrees to leave a copy of such data at the facility or plant to which such data relate, and to make available for access or to deliver to the Government such data upon request by the Contracting Officer. If such data are limited rights data or restricted computer software. the rights of the Government in such data shall be governed solely by the provisions of paragraph (g) of this clause ("Rights in Limited Rights Data") or paragraph (h) of this clause ("Rights in Restricted Computer Software"); and (v) The right to remove, cancel, correct, or ignore any markings not authorized by the terms of this Contract on any data furnished hereunder if, in response to a written inquiry by DOE concerning the propriety of the markings, the Contractor fails to respond thereto within 60 days or fails to substantiate the propriety of the markings. In either case DOE will notify the Contractor of the action taken.

(2) The Contractor shall have:

(i) The right to withhold limited rights data and restricted computer software unless otherwise provided in provisions of this clause;

(ii) The right to use for its private purposes, subject to patent, security or other provisions of this Contract, data it first produces in the performance of this Contract, except for data in DOE's Uranium Enrichment Technology, including diffusion, centrifuge, and atomic vapor laser isotope separation, provided the data

requirements of this Contract have been met as of the date of the private use of such data; and

(iii) The right to assert copyright subsisting in scientific and technical articles as provided in paragraph (d) of this clause and the right to request permission to assert copyright subsisting in works other than scientific and technical articles as provided in paragraph (e) of this clause.

(3) The Contractor agrees that for limited rights data or restricted computer software or other technical business or financial data in the form of recorded information which it receives from, or is given access to by DOE or a third party, including a DOE Contractor or subcontractor, and for technical data or computer software it first produces under this Contract which is authorized to be marked by DOE, the Contractor shall treat such data in accordance with any restrictive legend contained thereon.

(c) Copyright (General).

(1) The Contractor agrees not to mark, register, or otherwise assert copyright in any data in a published or unpublished work, other than as set forth in paragraphs (d) and (e) of this clause.

(2) Except for material to which the Contractor has obtained the right to assert copyright in accordance with either paragraph (d) or (e) of this clause, the Contractor agrees not to include in the data delivered under this Contract any material copyrighted by the Contractor and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in paragraph (d) of this clause. If the Contractor believes that such copyrighted material for which the license cannot be obtained must be included in the data to be delivered, rather than merely incorporated therein by reference, the Contractor shall obtain the written authorization of the Contracting Officer to include such material in the data prior to its delivery.

(d) Copyrighted works (scientific and technical articles).

(1) The Contractor shall have the right to assert, without prior approval of the Contracting Officer, copyright subsisting in scientific and technical articles composed under this Contract or based on or containing data first produced in the performance of this Contract, and published in academic, technical or professional journals, symposia, proceedings, or similar works. When assertion of copyright is made, the Contractor shall affix the applicable copyright notice of *17 U.S.C. 401* or 402 and acknowledgment of Government sponsorship (including Contract number) on the data when

such data are delivered to the Government as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. The Contractor grants to the Government, and others acting on its behalf, a nonexclusive, paid-up, irrevocable, world-wide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government.

(2) The Contractor shall mark each scientific or technical article first produced or composed under this Contract and submitted for journal publication or similar means of dissemination with a notice, similar in all material respects to the following, on the front reflecting the Government's non-exclusive, paid-up, irrevocable, world-wide license in the copyright.

Notice: This manuscript has been authored by [insert the name of the Contractor] under Contract No. [insert the contract number] with the U.S. Department of Energy. The United States Government retains and the publisher, by accepting the article for publication, acknowledges that the United States Government retains a non-exclusive, paid-up, irrevocable, world-wide license to publish or reproduce the published form of this manuscript, or allow others to do so, for United States Government purposes.

(End of Notice)

(3) The title to the copyright of the original of unclassified graduate theses and the original of related unclassified scientific papers shall vest in the author thereof, subject to the right of DOE to retain duplicates of such documents and to use such documents for any purpose whatsoever without any claim on the part of the author or the Contractor for additional compensation.

(e) Copyrighted works (other than scientific and technical articles and data produced under a CRADA). The Contractor may obtain permission to assert copyright subsisting in technical data and computer software first produced by the Contractor in performance of this Contract, where the Contractor can show that commercialization would be enhanced by such copyright protection, subject to the following:

(1) Contractor Request to Assert Copyright.

(i) For data other than scientific and technical articles and data produced under a CRADA, the Contractor shall submit in writing to Patent Counsel its request to assert copyright in data first produced in the performance of this Contract pursuant to this clause. The right of the Contractor to copyright data first produced

under a CRADA is as described in the individual CRADA. Each request by the Contractor must include:

(A) The identity of the data (including any computer program) for which the Contractor requests permission to assert copyright, as well as an abstract which is descriptive of the data and is suitable for dissemination purposes,

(B) The program under which it was funded, (C) Whether, to the best knowledge of the Contractor, the data is subject to an international treaty or agreement, (D) Whether the data is subject to export control, (E) A statement that the Contractor plans to commercialize the data in compliance with the clause of this Contract entitled, "Technology Transfer Mission," within five (5) years after obtaining permission to assert copyright or, on a case-by-case basis, a specified longer period where the Contractor can demonstrate that the ability to commercialize effectively is dependent upon such longer period, and (F) For data other than computer software, a statement explaining why the assertion of copyright is necessary to enhance commercialization and is consistent with DOE's dissemination responsibilities.

(ii) For data that is developed using other funding sources in addition to DOE funding, the permission to assert copyright in accordance with this clause must also be obtained by the Contractor from all other funding sources prior to the Contractor's request to Patent Counsel. The request shall include the Contractor's certification or other documentation acceptable to Patent Counsel demonstrating such permission has been obtained.

(iii) Permission for the Contractor to assert copyright in excepted categories of data as determined by DOE will be expressly withheld. Such excepted categories include data whose release

(A) would be detrimental to national security, i.e., involve classified information or data or sensitive information under Section 148 of the Atomic Energy Act of 1954, as amended, or are subject to export control for nonproliferation and other nuclear-related national security purposes,

(B) would not enhance the appropriate transfer or dissemination and commercialization of such data,

(C) would have a negative impact on U.S. industrial competitiveness,

(D) would prevent DOE from meeting its obligations under treaties and international agreements, or

(E) would be detrimental to one or more of DOE's programs. Additional excepted categories may be added by the Assistant General Counsel for Technology Transfer and Intellectual Property. Where data are determined to be under export control restriction, the Contractor may obtain permission to assert copyright subject to the provisions of this clause for purposes of limited commercialization in a manner that complies with export control statutes and applicable regulations. In addition, notwithstanding any other provision of this Contract, all data developed with Naval Reactors' funding and those data that are classified fall within excepted categories. The rights of the Contractor in data are subject to the disposition of data rights in the treaties and international agreements identified under this Contract as well as those additional treaties and international agreements which DOE may from time to time identify by unilateral amendment to the Contract; such amendment listing added treaties and international agreements is effective only for data which is developed after the date such treaty or international agreement is added to this Contract. Also, the Contractor will not be permitted to assert copyright in data in the form of various technical reports generated by the Contractor under the Contract without first obtaining the advanced written permission of the Contracting Officer.

(2) DOE Review and Response to Contractor's Request. The Patent Counsel shall use its best efforts to respond in writing within 90 days of receipt of a complete request by the Contractor to assert copyright in technical data and computer software pursuant to this clause. Such response shall either give or withhold DOE's permission for the Contractor to assert copyright or advise the Contractor that DOE needs additional time to respond, and the reasons therefor.

(3) Permission for Contractor to Assert Copyright.

(i) For computer software, the Contractor shall furnish to the DOE designated, centralized software distribution and control point, the Energy Science and Technology Software Center, at the time permission to assert copyright is given under paragraph (e)(2) of

this clause:

(A) An abstract describing the software suitable for publication,

(B) the source code for each software program, and

(C) the object code and at least the minimum support documentation needed by a technically competent user to understand and use the software. The Patent Counsel, for good cause shown by the Contractor, may allow the minimum support documentation to be delivered within 60 days after permission to assert copyright is given or at such time the minimum support documentation becomes available. The Contractor acknowledges that the DOE designated software distribution and control point may provide a technical description of the software in an announcement identifying its availability from the copyright holder.

(ii) Unless otherwise directed by the Contracting Officer, for data other than computer software to which the Contractor has received permission to assert copyright under paragraph (e)(2) of this clause above, the Contractor shall within sixty (60) days of obtaining such permission furnish to DOE's Office of Scientific and Technical Information (OSTI) a copy of such data as well as an abstract of the data suitable for dissemination purposes. The Contractor acknowledges that OSTI may provide an abstract of the data in an announcement to DOE, its Contractors and to the public identifying its availability from the copyright holder.

(iii) For a five year period or such other specified period as specifically approved by Patent Counsel beginning on the date the Contractor is given permission to assert copyright in data, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works and perform publicly and display publicly, by or on behalf of the Government. Upon request, the initial period may be extended after DOE approval. The DOE approval will be based on the standard that the work is still commercially available and the market demand is being met.

(iv) After the period approved by Patent Counsel for application of the limited Government license described in paragraph (e)(3)(iii) of this clause, or if, prior to the end of such period(s), the Contractor abandons commercialization activities pertaining to the data to

which the Contractor has been given permission to assert copyright, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, distribute copies to the public, prepare derivative works, perform publicly and display publicly, and to permit others to do so.

(v) Whenever the Contractor asserts copyright in data pursuant to this paragraph (e), the Contractor shall affix the applicable copyright notice of *17 U.S.C. 401* or 402 on the copyrighted data and also an acknowledgment of the Government sponsorship and license rights of paragraphs (e)(3) (iii) and (iv) of this clause. Such action shall be taken when the data are delivered to the Government, published, licensed or deposited for registration as a published work in the U.S. Copyright Office. The acknowledgment of Government sponsorship and license rights shall be as follows:

Notice: These data were produced by (insert name of Contractor) under Contract No.------- with the Department of Energy. For (period approved by DOE Patent Counsel) from (date permission to assert copyright was obtained), the Government is granted for itself and others acting on its behalf a nonexclusive, paid-up, irrevocable worldwide license in this data to reproduce, prepare derivative works, and perform publicly and display publicly, by or on behalf of the Government. There is provision for the possible extension of the term of this license. Subsequent to that period or any extension granted, the Government is granted for itself and others acting on its behalf a nonexclusive, paid-up, irrevocable worldwide license in this data to reproduce, prepare derivative works, distribute copies to the public, perform publicly and display publicly, and to permit others to do so. The specific term of the license can be identified by inquiry made to Contractor or DOE. Neither the United States nor the United States Department of Energy, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any data, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

(End of Notice)

(vi) With respect to any data to which the Contractor has received permission to assert copyright, the DOE has the right, during the five (5) year or specified longer period approved by Patent Counsel as provided for in paragraph (e) of this clause, to request the Contractor to grant a nonexclusive, partially exclusive or exclusive

license in any field of use to a responsible applicant(s) upon terms that are reasonable under the circumstances, and if the Contractor refuses such request, to grant such license itself, if the DOE determines that the Contractor has not made a satisfactory demonstration that either it or its licensee(s) is actively pursuing commercialization of the data as set forth in subparagraph (e)(1)(A) of this clause. Before licensing under this subparagraph (vi), DOE shall furnish the Contractor a written request for the Contractor to grant the stated license, and the Contractor shall be allowed thirty (30) days (or such longer period as may be authorized by the Contracting Officer for good cause shown in writing by the Contractor) after such notice to show cause why the license should not be granted. The Contractor shall have the right to appeal the decision of the DOE to grant the stated license to the Invention Licensing Appeal Board as set forth in 10 CFR 781.65- "Appeals."

(vii) No costs shall be allowable for maintenance of copyrighted data, primarily for the benefit of the Contractor and/or a licensee which exceeds DOE Program needs, except as expressly provided in writing by the Contracting Officer. The Contractor may use its net royalty income to effect such maintenance costs.

(viii) At any time the Contractor abandons commercialization activities for data for which the Contractor has received permission to assert copyright in accordance with this clause, it shall advise OSTI and Patent Counsel and upon request assign the copyright to the Government so that the Government can distribute the data to the public.

(4) The following notice may be placed on computer software prior to any publication and prior to the Contractor's obtaining permission from the Department of Energy to assert copyright in the computer software pursuant to paragraph (c)(3) of this section.

Notice: This computer software was prepared by [insert the Contractor's name and the individual author], hereinafter the Contractor, under Contract [insert the Contract Number] with the Department of Energy (DOE). All rights in the computer software are reserved by DOE on behalf of the United States Government and the Contractor as provided in the Contract. You are authorized to use this computer software for Governmental purposes but it is not to be released or distributed to the public. NEITHER THE GOVERNMENT NOR THE CONTRACTOR MAKES ANY WARRANTY, EXPRESS OR IMPLIED, OR ASSUMES ANY LIABILITY FOR THE USE OF THIS SOFTWARE. This notice

including this sentence must appear on any copies of this computer software.

(End of Notice)

(5) a similar notice can be used for data, other than computer software, upon approval of DOE Patent Counsel.

(f) Subcontracting.

(1) Unless otherwise directed by the Contracting Officer, the Contractor agrees to use in subcontracts in which technical data or computer software is expected to be produced or in subcontracts for supplies that contain a requirement for production or delivery of data in accordance with the policy and procedures of 48 CFR Subpart 27.4 as supplemented by 48 CFR 927.401 through 927.409, the clause entitled, "Rights in Data-General" at 48 CFR 52.227-14 modified in accordance with 927.409(a) and including Alternate V. Alternates II through IV of that clause may be included as appropriate with the prior approval of DOE Patent Counsel, and the Contractor shall not acquire rights in a Subcontractor's limited rights data or restricted computer software, except through the use of Alternates II or III, respectively, without the prior approval of DOE Patent Counsel. The clause at 48 CFR 52.227-16, Additional Data Requirements, shall be included in subcontracts in accordance with 48 CFR 927.409(h). The Contractor shall use instead the Rights in Data-Facilities clause at 48 CFR 970.5227-1 in subcontracts, including subcontracts for related support services, involving the design or operation of any plants or facilities or specially designed equipment for such plants or facilities that are managed or operated under its Contract with DOE.

(2) It is the responsibility of the Contractor to obtain from its Subcontractors technical data and computer software and rights therein, on behalf of the Government, necessary to fulfill the Contractor's obligations to the Government with respect to such data. In the event of refusal by a subcontractor to accept a clause affording the Government such rights, the Contractor shall:

(i) Promptly submit written notice to the Contracting Officer setting forth reasons or the subcontractor's refusal and other pertinent information which may expedite disposition of the matter, and

(ii) Not proceed with the subcontract without the written authorization of the Contracting Officer.

(3) Neither the Contractor nor higher-tier subcontractors shall use their power to award subcontracts as economic leverage to acquire rights in a

subcontractor's limited rights data and restricted computer software for their private use.

(g) Rights in Limited Rights Data. Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable nonexclusive, paid-up license by or for the Government, in any limited rights data of the Contractor specifically used in the performance of this Contract, provided, however, that to the extent that any limited rights data when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Limited Rights Notice" set forth below. All such limited rights data shall be marked with the following "Limited Rights Notice:"

Limited Rights Notice

These data contain "limited rights data," furnished under Contract No.------- with the United States Department of Energy which may be duplicated and used by the Government with the express limitations that the "limited rights data" may not be disclosed outside the Government or be used for purposes of manufacture without prior permission of the Contractor, except that further disclosure or use may be made solely for the following purposes:

(a) Use (except for manufacture) by support services Contractors within the scope of their contracts;

(b) This "limited rights data" may be disclosed for evaluation purposes under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;

(c) This "limited rights data" may be disclosed to other Contractors participating in the Government's program of which this Contract is a part for information or use (except for manufacture) in connection with the work performed under their contracts and under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;

(d) This "limited rights data" may be used by the Government or others on its behalf for emergency repair or overhaul work under the restriction that the "limited rights data" be retained in confidence and not be further disclosed; and

(e) Release to a foreign Government, or instrumentality thereof, as the interests of the United States Government may require, for information or

evaluation, or for emergency repair or overhaul work by such Government.

This Notice shall be marked on any reproduction of this data in whole or in part.

(End of Notice)

(h) Rights in Restricted Computer Software.

(1) Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up, license by or for the Government, in any restricted computer software of the Contractor specifically used in the performance of this Contract; provided, however, that to the extent that any restricted computer software when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Restricted Rights Notice" set forth below. All such restricted computer software shall be marked with the following "Restricted Rights Notice:"

Restricted Rights Notice-Long Form

(a) This computer software is submitted with restricted rights under Department of Energy Contract No.---. It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this notice.

(b) This computer software may be:

(1) Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;

(2) Used, copied for use, in a backup or replacement computer if any computer for which it was acquired is inoperative or is replaced;

(3) Reproduced for safekeeping (archives) or backup purposes;

(4) Modified, adapted, or combined with other computer software, provided that only the portions of the derivative software consisting of the restricted computer software are to be made subject to the same restricted rights; and

(5) Disclosed to and reproduced for use by Contractors under a service contract (of the type defined in 48 CFR 37.101) in accordance with subparagraphs (b)(1) through (4) of this Notice, provided the Government makes such disclosure or reproduction subject to these restricted rights.

(c) Notwithstanding the foregoing, if this computer software has been published under copyright, it is licensed to the Government, without disclosure prohibitions, with the rights set forth in the restricted rights notice above.

(d) This Notice shall be marked on any reproduction of this computer software, in whole or in part.

(End of Notice)

(2) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used in lieu thereof:

Restricted Rights Notice-Short Form

Use, reproduction, or disclosure is subject to restrictions set forth in the Long Form Notice of DOE Contract No.--- with (name of Contractor).

(End of Notice)

(3) If the software is embedded, or if it is commercially impractical to mark it with human readable text, then the symbol R and the clause date (mo/yr) in brackets or a box, a [R-mo/yr], may be used. This will be read to mean restricted computer software, subject to the rights of the Government as described in the Long Form Notice, in effect as of the date indicated next to the symbol. The symbol shall not be used to mark human readable material. In the event this Contract contains any variation to the rights in the Long Form Notice, then the contract number must also be cited.

(4) If restricted computer software is delivered with the copyright notice of *17 U.S.C. 401,* the software will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions and with unlimited rights, unless the Contractor includes the following statement with such copyright notice "Unpublished-rights reserved under the Copyright Laws of the United States."

(i) Relationship to patents. Nothing contained in this clause creates or is intended to imply a license to the Government in any patent or is

intended to be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.
(End of Clause)

I–94 970.5227-3 Technology Transfer Mission (Aug 2002) Alternate I (Aug 2002)

This clause has as its purpose implementation of the National Competitiveness Technology Transfer Act of 1989 (Sections 3131, 3132, 3133, and 3157 of Pub. L. 101-189 and as amended by Pub. L. 103-160, Sections 3134 and 3160). The Contractor shall conduct technology transfer activities with a purpose of providing benefit from Federal research to U.S. industrial competitiveness.

(a) Authority.

(1) In order to ensure the full use of the results of research and development efforts of, and the capabilities of, the Laboratory, technology transfer, including Cooperative Research and Development Agreements (CRADAs), is established as a mission of the Laboratory consistent with the policy, principles and purposes of Sections 11(a)(1) and 12(g) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710a);* Section 3132(b) of Pub. L. 101-189, Sections 3134 and 3160 of Pub. L. 103-160, and of Chapter 38 of the Patent Laws *(35 U.S.C. 200* et seq.); Section 152 of the Atomic Energy Act of 1954, as amended *(42 U.S.C. 2182);* Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 *(42 U.S.C. 5908);* and Executive Order 12591 of April 10, 1987.

(2) In pursuing the technology transfer mission, the Contractor is authorized to conduct activities including but not limited to: identifying and protecting Intellectual Property made, created or acquired at or by the Laboratory; negotiating licensing agreements and assignments for Intellectual Property made, created or acquired at or by the Laboratory that the Contractor controls or owns; bailments; negotiating all aspects of and entering into CRADAs; providing technical consulting and personnel exchanges; conducting science education activities and reimbursable Work for Others (WFO); providing information exchanges; and making available Laboratory or weapon production user facilities. It is fully expected that the Contractor shall use all of the mechanisms available to it to accomplish this technology transfer mission, including, but not limited to, CRADAs, user facilities, WFO, science education activities, consulting, personnel, assignments, and licensing in accordance with this clause.

(b) Definitions.

(1) Contractor's Laboratory Director means the individual who has supervision over all or substantially all of the Contractor's operations at the Laboratory.

(2) Intellectual Property means patents, trademarks, copyrights, mask works, protected CRADA information, and other forms of comparable property rights protected by Federal Law and other foreign counterparts.

(3) Cooperative Research and Development Agreement (CRADA) means any agreement entered into between the Contractor as operator of the Laboratory, and one or more Parties including at least one non-Federal party under which the Government, through its Laboratory, provides personnel, services, facilities, equipment, intellectual property, or other resources with or without reimbursement (but not funds to non-Federal Parties) and the non-Federal Parties provide funds, personnel, services, facilities, equipment, intellectual property, or other resources toward the conduct of specified research or development efforts which are consistent with the missions of the Laboratory; except that such term does not include a procurement contract, grant, or cooperative agreement as those terms are used in sections 6303, 6304, and 6305 of Title 31 of the United States Code.

(4) Joint Work Statement (JWS) means a proposal for a CRADA prepared by the Contractor, signed by the Contractor's Laboratory Director or designee which describes the following:

(i) Purpose;

(ii) Scope of Work which delineates the rights and responsibilities of the Government, the Contractor and Third Parties, one of which must be a non-Federal party;

(iii) Schedule for the work; and

(iv) Cost and resource contributions of the Parties associated with the work and the schedule.

(5) Assignment means any agreement by which the Contractor transfers ownership of Laboratory Intellectual Property, subject to the Government's retained rights.

(6) Laboratory Biological Materials means biological materials capable of replication or reproduction, such as plasmids, deoxyribonucleic acid molecules, ribonucleic acid molecules, living organisms of any sort and their progeny, including viruses, prokaryote and eukaryote cell lines, transgenic plants and animals, and any derivatives or modifications thereof

or products produced through their use or associated biological products, made under this Contract by Laboratory employees or through the use of Laboratory research facilities.

(7) Laboratory Tangible Research Product means tangible material results of research which

(i) are provided to permit replication, reproduction, evaluation or confirmation of the research effort, or to evaluate its potential commercial utility;

(ii) are not materials generally commercially available; and

(iii) were made under this Contract by Laboratory employees or through the use of Laboratory research facilities.

(8) Bailment means any agreement in which the Contractor permits the commercial or non-commercial transfer of custody, access or use of Laboratory Biological Materials or Laboratory Tangible Research Product for a specified purpose of technology transfer or research and development, including without limitation evaluation, and without transferring ownership to the bailee.

(9) Privately funded technology transfer means the prosecuting, maintaining, licensing, and marketing of inventions which are not owned by the Government (and not related to CRADAs) when such activities are conducted entirely without the use of Government funds.

(c) Allowable Costs.

(1) The Contractor shall establish and carry out its technology transfer efforts through appropriate organizational elements consistent with the requirements for an Office of Research and Technology Applications (ORTA) pursuant to paragraphs (b) and (c) of Section 11 of the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710).* The costs associated with the conduct of technology transfer through the ORTA including activities associated with obtaining, maintaining, licensing, and assigning Intellectual Property rights, increasing the potential for the transfer of technology, and the widespread notice of technology transfer opportunities, shall be deemed allowable provided that such costs meet the other requirements of the allowable costs provisions of this Contract. In addition to any separately designated funds, these costs in any fiscal year shall not exceed an amount equal to 0.5 percent of the operating funds included in the Federal research and development budget (including Work For Others) of the Laboratory for that fiscal year without written approval of the Contracting Officer.

(2) The Contractor's participation in litigation to enforce or defend Intellectual Property claims incurred in its technology transfer efforts shall be as provided in the clause entitled "Insurance-Litigation and Claims" of this Contract.

(d) Conflicts of Interest-Technology Transfer. The Contractor shall have implementing procedures that seek to avoid employee and organizational conflicts of interest, or the appearance of conflicts of interest, in the conduct of its technology transfer activities. These procedures shall apply to other persons participating in Laboratory research or related technology transfer activities. Such implementing procedures shall be provided to the Contracting Officer for review and approval within sixty (60) days after execution of this Contract. The Contracting Officer shall have thirty (30) days thereafter to approve or require specific changes to such procedures. Such implementing procedures shall include procedures to:

(1) Inform employees of and require conformance with standards of conduct and integrity in connection with the CRADA activity in accordance with the provisions of paragraph (n)(5) of this clause;

(2) Review and approve employee activities so as to avoid conflicts of interest arising from commercial utilization activities relating to Contractor-developed Intellectual Property;

(3) Conduct work performed using royalties so as to avoid interference with or adverse effects on ongoing DOE projects and programs;

(4) Conduct activities relating to commercial utilization of Contractor-developed Intellectual Property so as to avoid interference with or adverse effects on user facility or WFO activities of the Contractor;

(5) Conduct DOE-funded projects and programs so as to avoid the appearance of conflicts of interest or actual conflicts of interest with non-Government funded work;

(6) Notify the Contracting Officer with respect to any new work to be performed or proposed to be performed under the Contract for DOE or other Federal agencies where the new work or proposal involves Intellectual Property in which the Contractor has obtained or intends to request or elect title;

(7) Except as provided elsewhere in this Contract, obtain the approval of the Contracting Officer for any licensing of or assignment of title to Intellectual Property rights by the Contractor to any business or corporate affiliate of the Contractor;

(8) Obtain the approval of the Contracting Officer prior to any assignment, exclusive licensing, or option for exclusive licensing, of Intellectual Property to any individual who has been a Laboratory employee within the previous two years or to the company in which the individual is a principal; and

(9) Notify non-Federal sponsors of WFO activities, or non-Federal users of user facilities, of any relevant Intellectual Property interest of the Contractor prior to execution of WFOs or user agreements.

(10) Notify DOE prior to evaluating a proposal by a third party or DOE, when the subject matter of the proposal involves an elected or waived subject invention under this Contract or one in which the Contractor intends to elect to retain title under this Contract.

(e) Fairness of Opportunity. In conducting its technology transfer activities, the Contractor shall prepare procedures and take all reasonable measures to ensure widespread notice of availability of technologies suited for transfer and opportunities for exclusive licensing and joint research arrangements. The requirement to widely disseminate the availability of technology transfer opportunities does not apply to a specific application originated outside of the Laboratory and by entities other than the Contractor.

(f) U.S. Industrial Competitiveness.

(1) In the interest of enhancing U.S. Industrial Competitiveness, the Contractor shall, in its licensing and assignments of Intellectual Property, give preference in such a manner as to enhance the accrual of economic and technological benefits to the U.S. domestic economy. The Contractor shall consider the following factors in all of its licensing and assignment decisions involving Laboratory intellectual property where the Laboratory obtains rights during the course of the Contractor's operation of the Laboratory under this Contract:

(i) whether any resulting design and development will be performed in the United States and whether resulting products, embodying parts, including components thereof, will be substantially manufactured in the United States; or

(ii)

(A) whether the proposed licensee or assignee has a business unit located in the United States and whether significant economic and technical benefits will flow to the United States as a result of the license or assignment agreement; and

(B) in licensing any entity subject to the control of a foreign company or Government, whether such foreign Government permits United States agencies, organizations or other persons to enter into cooperative research and development agreements and licensing agreements, and has policies to protect United States Intellectual Property rights.

(2) If the Contractor determines that neither of the conditions in paragraphs (f)(1)(i) or (ii) of this clause are likely to be fulfilled, the Contractor, prior to entering into such an agreement, must obtain the approval of the Contracting Officer. The Contracting Officer shall act on any such requests for approval within thirty (30) days.

(3) The Contractor agrees to be bound by the provisions of *35 U.S.C. 204* (Preference for United States industry).

(g) Indemnity-Product Liability. In entering into written technology transfer agreements, including but not limited to, research and development agreements, licenses, assignments and CRADAs, the Contractor agrees to include in such agreements a requirement that the U.S. Government and the Contractor, except for any negligent acts or omissions of the Contractor, be indemnified for all damages, costs, and expenses, including attorneys' fees, arising from personal injury or property damage occurring as a result of the making, using or selling of a product, process or service by or on behalf of the Participant, its assignees or licensees which was derived from the work performed under the agreement. The Contractor shall identify and obtain the approval of the Contracting Officer for any proposed exceptions to this requirement such as where State or local law expressly prohibit the Participant from providing indemnification or where the research results will be placed in the public domain.

(h) Disposition of Income.

(1) Royalties or other income earned or retained by the Contractor as a result of performance of authorized technology transfer activities herein shall be used by the Contractor for scientific research, development, technology transfer, and education at the Laboratory, consistent with the research and development mission and objectives of the Laboratory and subject to Section 12(b)(5) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710a*(b)(5)) and Chapter 38 of the Patent Laws *(35 U.S.C. 200* et seq.) as amended through the effective date of this contract award or modification. If the net amounts of such royalties and income received from patent licensing after payment of patenting costs, licensing costs, payments to inventors and other expenses incidental to the administration of Subject Inventions during any fiscal year exceed 5 percent of the Laboratory's budget for that fiscal year, 75 percent of such

excess amounts shall be paid to the Treasury of the United States, and the remaining amount of such excess shall be used by the Contractor for the purposes as described above in this paragraph. Any inventions arising out of such scientific research and development activities shall be deemed to be Subject Inventions under the Contract.

(2) The Contractor shall include as a part of its annual Laboratory Institutional Plan or other such annual document a plan setting out those uses to which royalties and other income received as a result of performance of authorized technology transfer activities herein will be applied at the Laboratory, and at the end of the year, provide a separate accounting for how the funds were actually used. Under no circumstances shall these royalties and income be used for an illegal augmentation of funds furnished by the U.S. Government.

(3) The Contractor shall establish subject to the approval of the Contracting Officer a policy for making awards or sharing of royalties with Contractor employees, other coinventors and coauthors, including Federal employee coinventors when deemed appropriate by the Contracting Officer.

(i) Transfer to Successor Contractor. In the event of termination or upon the expiration of this Contract, any unexpended balance of income received for use at the Laboratory shall be transferred, at the Contracting Officer's request, to a successor Contractor, or in the absence of a successor Contractor, to such other entity as designated by the Contracting Officer. The Contractor shall transfer title, as one package, to the extent the Contractor retains title, in all patents and patent applications, licenses, accounts containing royalty revenues from such license agreements, including equity positions in third party entities, and other Intellectual Property rights which arose at the Laboratory, to the successor Contractor or to the Government as directed by the Contracting Officer.

(j) Technology Transfer Affecting the National Security.

(1) The Contractor shall notify and obtain the approval of the Contracting Officer, prior to entering into any technology transfer arrangement, when such technology or any part of such technology is classified or sensitive under Section 148 of the Atomic Energy Act *(42 U.S.C. 2168)*. Such notification shall include sufficient information to enable DOE to determine the extent that commercialization of such technology would enhance or diminish security interests of the United States, or diminish communications within DOE's nuclear weapon production complex. DOE shall use its best efforts to complete its determination within sixty (60) days of the Contractor's notification, and provision of any supporting information, and DOE shall promptly notify the Contractor as to whether the technology is transferable.

(2) The Contractor shall include in all of its technology transfer agreements with third Parties, including, but not limited to, CRADAs, licensing agreements and assignments, notice to such third Parties that the export of goods and/or Technical Data from the United States may require some form of export control license or other authority from the U.S. Government and that failure to obtain such export control license may result in criminal liability under U.S. laws.

(3) For other than fundamental research as defined in National Security Decision Directive 189, the Contractor is responsible to conduct internal export control reviews and assure that technology is transferred in accordance with applicable law.

(k) Records. The Contractor shall maintain records of its technology transfer activities in a manner and to the extent satisfactory to the DOE and specifically including, but not limited to, the licensing agreements, assignments and the records required to implement the requirements of paragraphs (e), (f), and (h) of this clause and shall provide reports to the Contracting Officer to enable DOE to maintain the reporting requirements of Section 12(c)(6) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710a*(c)(6)). Such reports shall be made annually in a format to be agreed upon between the Contractor and DOE and in such a format which will serve to adequately inform DOE of the Contractor's technology transfer activities while protecting any data not subject to disclosure under the Rights in Technical Data clause and paragraph (n) of this clause. Such records shall be made available in accordance with the clauses of this Contract pertaining to inspection, audit and examination of records.

(l) Reports to Congress. To facilitate DOE's reporting to Congress, the Contractor is required to submit annually to DOE a technology transfer plan for conducting its technology transfer function for the upcoming year, including plans for securing Intellectual Property rights in Laboratory innovations with commercial promise and plans for managing such innovations so as to benefit the competitiveness of United States industry. This plan shall be provided to the Contracting Officer on or before October 1st of each year.

(m) Oversight and Appraisal. The Contractor is responsible for developing and implementing effective internal controls for all technology transfer activities consistent with the audit and record requirements of this Contract. Laboratory Contractor performance in implementing the technology transfer mission and the effectiveness of the Contractor's procedures will be evaluated by the Contracting Officer as part of the annual appraisal process, with input from the cognizant Secretarial Officer or program office.

(n) Technology Transfer Through Cooperative Research and Development Agreements. Upon approval of the Contracting Officer and as provided in a DOE approved Joint Work Statement (JWS), the Laboratory Director, or designee, may

enter into CRADAs on behalf of the DOE subject to the requirements set forth in this paragraph.

(1) Review and Approval of CRADAs.

(i) Except as otherwise directed in writing by the Contracting Officer, each JWS shall be submitted to the Contracting Officer for approval. The Contractor's Laboratory Director or designee shall provide a program mission impact statement and shall include an impact statement regarding related Intellectual Property rights known by the Contractor to be owned by the Government to assist the Contracting Officer in the approval determination.

(ii) The Contractor shall also include (specific to the proposed CRADA), a statement of compliance with the Fairness of Opportunity requirements of paragraph (e) of this clause.

(iii) Within thirty (30) days after submission of a JWS or proposed CRADA, the Contracting Officer shall approve, disapprove or request modification to the JWS or CRADA. The Contracting Officer shall provide a written explanation to the Contractor's Laboratory Director or designee of any disapproval or requirement for modification of a JWS or proposed CRADA.

(iv) Except as otherwise directed in writing by the Contracting Officer, the Contractor shall not enter into, or begin work under, a CRADA until approval of the CRADA has been granted by the Contracting Officer. The Contractor may submit its proposed CRADA to the Contracting Officer at the time of submitting its proposed JWS or any time thereafter.

(2) Selection of Participants. The Contractor's Laboratory Director or designee in deciding what CRADA to enter into shall:

(i) Give special consideration to small business firms, and consortia involving small business firms;

(ii) Give preference to business units located in the United States which agree that products or processes embodying Intellectual Property will be substantially manufactured or practiced in the United States and, in the case of any industrial organization or other person subject to the control of a foreign company or Government, take into consideration whether or not such foreign Government permits United States agencies, organizations, or other persons to enter into cooperative research and development agreements and licensing agreements;

(iii) Provide Fairness of Opportunity in accordance with the requirements of paragraph (e) of this clause; and

(iv) Give consideration to the Conflicts of Interest requirements of paragraph (d) of this clause.

(3) Withholding of Data.

(i) Data that is first produced as a result of research and development activities conducted under a CRADA and that would be a trade secret or commercial or financial data that would be privileged or confidential, if such data had been obtained from a non-Federal third party, may be protected from disclosure under the Freedom of Information Act as provided in the Stevenson-Wydler Technology Innovation Act of 1980, as amended *(15 U.S.C. 3710a*(c)(7)) for a period as agreed in the CRADA of up to five (5)years from the time the data is first produced. The DOE shall cooperate with the Contractor in protecting such data.

(ii) Unless otherwise expressly approved by the Contracting Officer in advance for a specific CRADA, the Contractor agrees, at the request of the Contracting Officer, to transmit such data to other DOE facilities for use by DOE or its Contractors by or on behalf of the Government. When data protected pursuant to paragraph (n)(3)(i) of this clause is so transferred, the Contractor shall clearly mark the data with a legend setting out the restrictions against private use and further dissemination, along with the expiration date of such restrictions.

(iii) In addition to its authority to license Intellectual Property, the Contractor may enter into licensing agreements with third Parties for data developed by the Contractor under a CRADA subject to other provisions of this Contract. However, the Contractor shall neither use the protection against dissemination nor the licensing of data as an alternative to the submittal of invention disclosures which include data protected pursuant to paragraph (n)(3)(i) of this clause.

(4) Work For Others and User Facility Programs.

(i) WFO and User Facility Agreements (UFAs) are not CRADAs and will be available for use by the Contractor in addition to CRADAs for achieving utilization of employee expertise and unique facilities for maximizing technology transfer. The Contractor agrees to inform prospective CRADA participants, which are

intending to substantially pay full cost recovery for the effort under a proposed CRADA, of the availability of alternative forms of agreements, i.e., WFO and UFA, and of the Class Patent Waiver provisions associated therewith.

(ii) Where the Contractor believes that the transfer of technology to the U.S. domestic economy will benefit from, or other equity considerations dictate, an arrangement other than the Class Waiver of patent rights to the sponsor in WFO and UFAs, a request may be made to the Contracting Officer for an exception to the Class Waivers.

(iii) Rights to inventions made under agreements other than funding agreements with third Parties shall be governed by the appropriate provisions incorporated, with DOE approval, in such agreements, and the provisions in such agreements take precedence over any disposition of rights contained in this Contract. Disposition of rights under any such agreement shall be in accordance with any DOE class waiver (including Work for Others and User Class Waivers) or individually negotiated waiver which applies to the agreement.

(5) Conflicts of Interest.

(i) Except as provided in paragraph (n)(5)(iii) of this clause, the Contractor shall assure that no employee of the Contractor shall have a substantial role (including an advisory role) in the preparation, negotiation, or approval of a CRADA, if, to such employee's knowledge:

(A) Such employee, or the spouse, child, parent, sibling, or partner of such employee, or an organization (other than the Contractor) in which such employee serves as an officer, director, trustee, partner, or employee-

(1) holds financial interest in any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA;

(2) receives a gift or gratuity from any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA; or

(B) A financial interest in any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA, is held by any person or organization with whom such employee is negotiating or has any arrangement concerning prospective employment.

(ii) The Contractor shall require that each employee of the Contractor who has a substantial role (including an advisory role) in the preparation, negotiation, or approval of a CRADA certify through the Contractor to the Contracting Officer that the circumstances described in paragraph (n)(5)(i) of this clause do not apply to that employee.

(iii) The requirements of paragraphs (n)(5)(i) and (n)(5)(ii) of this clause shall not apply in a case where the Contracting Officer is advised by the Contractor in advance of the participation of an employee described in those paragraphs in the preparation, negotiation or approval of a CRADA of the nature of and extent of any financial interest described in paragraph (n)(5)(i) of this clause, and the Contracting Officer determines that such financial interest is not so substantial as to be considered likely to affect the integrity of the Contractor employee's participation in the process of preparing, negotiating, or approving the CRADA.

(o) Technology Transfer in Other Cost-Sharing Agreements. In conducting research and development activities in cost-shared agreements not covered by paragraph (n) of this clause, the Contractor, with prior written permission of the Contracting Officer, may provide for the withholding of data produced thereunder in accordance with the applicable provisions of paragraph (n)(3) of this clause.

(p) Technology Partnership Ombudsman.

(1) The Contractor agrees to establish a position to be known as “Technology Partnership Ombudsman,” to help resolve complaints from outside organizations regarding the policies and actions of the Contractor with respect to technology partnerships (including CRADAs), patents owned by the Contractor for inventions made at the Laboratory, and technology licensing.

(2) The Ombudsman shall be a senior official of the Contractor’s Laboratory staff, who is not involved in day-to-day technology partnerships, patents or technology licensing, or, if appointed from outside the Laboratory or facility, shall function as such senior official.

(3) The duties of the Technology Partnership Ombudsman shall include:

(i) Serving as the focal point for assisting the public and industry in resolving complaints and disputes with the Laboratory or facility regarding technology partnerships, patents, and technology licensing;

(ii) Promoting the use of collaborative alternative dispute resolution techniques, such as mediation, to facilitate the speedy and low cost resolution of complaints and disputes, when appropriate; and

(iii) Submitting a quarterly report, in a format provided by DOE, to the Secretary of Energy, the Administrator for Nuclear Security, the Director of the DOE Office of Dispute Resolution, and the Contracting Officer concerning the number and nature of complaints and disputes raised, along with the Ombudsman's assessment of their resolution, consistent with the protection of confidential and sensitive information.

(q) Nothing in paragraphs (c) Allowable Costs, (e) Fairness of Opportunity, (f) U.S. Industrial Competitiveness, (g) Indemnity-Product Liability, (h) Disposition of Income, and (i) Transfer to Successor Contractor of this clause are intended to apply to the Contractor's privately funded technology transfer activities if such privately funded activities are addressed elsewhere in the Contract.

(End of Clause)

I–95 970.5227-4 Authorization and Consent (Aug 2002)

(a) The Government authorizes and consents to all use and manufacture of any invention described in and covered by a United States patent in the performance of this Contract or any subcontract at any tier.

(b) If the Contractor is sued for copyright infringement or anticipates the filing of such a lawsuit, the Contractor may request authorization and consent to copy a copyrighted work from the Contracting Officer. Programmatic necessity is a major consideration for DOE in determining whether to grant such request.

(c)

(1) The Contractor agrees to include, and require inclusion of, the Authorization and Consent clause at 52.227-1, without Alternate 1, but suitably modified to identify the Parties, in all subcontracts expected to exceed $100,000 at any tier for supplies or services, including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services.

(2) The Contractor agrees to include, and require inclusion of, paragraph (a) of this Authorization and Consent clause, suitably modified to identify the Parties, in all subcontracts at any tier for research and development activities expected to exceed $100,000.

(3) Omission of an authorization and consent clause from any subcontract, including those valued less than $100,000 does not affect this authorization and consent.

(End of Clause)

I–96 970.5227-5 Notice and Assistance Regarding Patent and Copyright Infringement (Aug 2002)

(a) The Contractor shall report to the Contracting Officer promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this Contract of which the Contractor has knowledge.

(b) If any person files a claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this Contract or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Except where the Contractor has agreed to indemnify the Government, the Contractor shall furnish such evidence and information at the expense of the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause suitably modified to identify the Parties, in all subcontracts at any tier expected to exceed $100,000.

(End of Clause)

I–97 970.5227-6 Patent Indemnity-Subcontracts (Dec 2000)

Except as otherwise authorized by the Contracting Officer, the Contractor shall obtain indemnification of the Government and its officers, agents, and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a secrecy order by the Government) from Contractor's subcontractors for any Contract work subcontracted in accordance with FAR 48 CFR 52.227-3.

(End of Clause)

I–98 970.5227-8 Refund of Royalties (Aug 2002)

(a) During performance of this Contract, if any royalties are proposed to be charged to the Government as costs under this Contract, the Contractor agrees to submit

for approval of the Contracting Officer, prior to the execution of any license, the following information relating to each separate item of royalty:

(1) Name and address of licensor;

(2) Patent numbers, patent application serial numbers, or other basis on which the royalty is payable;

(3) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable;

(4) Percentage or dollar rate of royalty per unit;

(5) Unit price of contract item;

(6) Number of units;

(8) Total dollar amount of royalties; and

(9) A copy of the proposed license agreement.

(b) If specifically requested by the Contracting Officer, the Contractor shall furnish a copy of any license agreement entered into prior to the effective date of this clause and an identification of applicable claims of specific patents or other basis upon which royalties are payable.

(c) The term "royalties" as used in this clause refers to any costs or charges in the nature of royalties, license fees, patent or license amortization costs, or the like, for the use of or for rights in patents and patent applications that are used in the performance of this Contract or any subcontract hereunder.

(d) The Contractor shall furnish to the Contracting Officer, annually upon request, a statement of royalties paid or required to be paid in connection with performing this Contract and subcontracts hereunder.

(e) For royalty payments under licenses entered into after the effective date of this Contract, costs incurred for royalties proposed under this paragraph shall be allowable only to the extent that such royalties are approved by the Contracting Officer. If the Contracting Officer determines that existing or proposed royalty payments are inappropriate, any payments subsequent to such determination shall be allowable only to the extent approved by the Contracting Officer.

(f) Regardless of prior DOE approval of any individual payments or royalties, DOE may contest at any time the enforceability, validity, scope of, or title to a patent for which the Contractor makes a royalty or other payment.

(g) If at any time within 3 years after final payment under this Contract, the Contractor for any reason is relieved in whole or in part from the payment of any royalties to which this clause applies, the Contractor shall promptly notify the Contracting Office of that fact and shall promptly reimburse the Government for any refunds received or royalties paid after having received notice of such relief.

(h) The Contractor agrees to include, and require inclusion of, this clause, including this paragraph (h), suitably modified to identify the Parties in any subcontract at any tier in which the amount of royalties reported during negotiation of the subcontract exceeds $250.

(End of Clause)

I–99 970.5227-10 Patent Rights-Management and Operating Contracts, Nonprofit Organization or Small Business Firm Contractor (Aug 2002)

(a) Definitions.

(1) DOE licensing regulations means the Department of Energy patent licensing regulations at 10 CFR Part 781.

(2) Exceptional circumstance subject invention means any subject invention in a technical field or related to a task determined by the Department of Energy to be subject to an exceptional circumstance under *35 U.S.C. 202*(a)(ii) and in accordance with 37 CFR 401.3(e).

(3) Invention means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act *(7 U.S.C. 2321* et seq.).

(4) Made when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) Nonprofit organization means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 *(26 U.S.C. 501*(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code *(26 U.S.C. 501*(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(6) Patent Counsel means the Department of Energy (DOE) Patent Counsel assisting the DOE contracting activity.

(7) Practical application means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are,

to the extent permitted by law or Government regulations, available to the public on reasonable terms.

(8) Small business firm means a small business concern as defined at section 2 of Pub. L. 85-536 *(15 U.S.C. 632)* and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, are used.

(9) Subject Invention means any invention of the Contractor conceived or first actually reduced to practice in the performance of work under this Contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, *7 U.S.C. 2401*(d)) shall also occur during the period of Contract performance.

(b) Allocation of Principal Rights.

(1) Retention of title by the Contractor. Except for exceptional circumstance subject inventions, the Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and *35 U.S.C. 203.* With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(2) Exceptional circumstance subject inventions. Except to the extent that rights are retained by the Contractor in a determination of exceptional circumstances or granted to a Contractor through a determination of greater rights in accordance with subparagraph (b)(4) of this clause, the Contractor does not have a right to retain title to any exceptional circumstance subject inventions and agrees to assign to the Government the entire right, title, and interest, throughout the world, in and to any exceptional circumstance subject inventions.

(i) Inventions within or relating to the following fields of technology are exceptional circumstance subject inventions:

(A) uranium enrichment technology;

(B) storage and disposal of civilian high-level nuclear waste and spent fuel technology; and

(C) national security technologies classified or sensitive under Section 148 of the Atomic Energy Act *(42 U.S.C. 2168).*

(ii) Inventions made under any agreement, contract or subcontract related to the following are exceptional circumstance subject inventions:

(A) DOE Steel Initiative and Metals Initiative;

(B) U.S. Advanced Battery Consortium; and

(C) any funding agreement which is funded in part by the Electric Power Research Institute (EPRI) or the Gas Research Institute (GRI).

(iii) DOE reserves the right to unilaterally amend this Contract to modify, by deletion or insertion, technical fields, tasks, or other classifications for the purpose of determining DOE exceptional circumstance subject inventions.

(3) Treaties and international agreements. Any rights acquired by the Contractor in subject inventions are subject to any disposition of right, title, or interest in or to subject inventions provided for in treaties or international agreements identified at Appendix [Insert Reference] to this Contract. DOE reserves the right to unilaterally amend this Contract to identify specific treaties or international agreements entered into or to be entered into by the Government after the effective date of this Contract and to effectuate those license or other rights which are necessary for the Government to meet its obligations to foreign Governments, their nationals and international organizations [*81060] under such treaties or international agreements with respect to subject inventions made after the date of the amendment.

(4) Contractor request for greater rights in exceptional circumstance subject inventions. The Contractor may request rights greater than allowed by the exceptional circumstance determination in an exceptional circumstance subject invention by submitting such a request in writing to Patent Counsel at the time the exceptional circumstance subject invention is disclosed to DOE or within eight (8) months after conception or first actual reduction to practice of the exceptional circumstance subject invention, whichever occurs first, unless a longer period is authorized in writing by the Patent Counsel for good cause shown in writing by the Contractor. DOE may, in its discretion, grant or refuse to grant such a request by the Contractor.

(5) Contractor employee-inventor rights. If the Contractor does not elect to retain title to a subject invention or does not request greater rights in an exceptional circumstance subject invention, a Contractor employee-inventor, after consultation with the Contractor and with written authorization from the Contractor in accordance with 10 CFR 784.9(b)(4), may request greater rights, including title, in the subject invention or the exceptional circumstance invention from DOE, and DOE may, in its discretion, grant or refuse to grant such a request by the Contractor employee-inventor.

(6) Government assignment of rights in Government employees' subject inventions. If a Government employee is a joint inventor of a subject invention or of an exceptional circumstance subject invention to which the Contractor has rights, the Government may assign or refuse to assign to the Contractor any rights in the subject invention or exceptional circumstance subject invention acquired by the Government from the Government employee, in accordance with 48 CFR 27.304-1(d). The rights assigned to the Contractor are subject to any provision of this clause that is applicable to subject inventions in which the Contractor retains title, including reservation by the Government of a nonexclusive, nontransferable, irrevocable, paid-up license, except that the Contractor shall file its initial patent application claiming the subject invention or exceptional circumstance invention within one (1) year after the assignment of such rights. The Contractor shall share royalties collected for the manufacture, use or sale of the subject invention with the Government employee.

(c) Subject Invention Disclosure, Election of Title and Filing of Patent Application by Contractor.

(1) Subject invention disclosure. The Contractor will disclose each subject invention to the Patent Counsel within two months after the inventor discloses it in writing to Contractor personnel responsible for patent matters. The disclosure to the agency shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s) and all sources of funding by B&R code for the invention. It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. The disclosure shall include a written statement as to whether the invention falls within an exceptional circumstance field. DOE will make a determination and advise the Contractor within 30 days of receipt

of an invention disclosure as to whether the invention is an exceptional circumstance subject invention. In addition, after disclosure to the Patent Counsel, the Contractor will promptly notify the agency of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor. The Contractor shall obtain approval from Patent Counsel prior to any release or publication of information concerning any nonelectable subject invention such as an exceptional circumstance subject invention or any subject invention related to a treaty or international agreement.

(2) Election by the Contractor. Except as provided in paragraph (b)(2) of this clause, the Contractor will elect in writing whether or not to retain title to any such invention by notifying the Federal agency within two years of disclosure to the Federal agency. However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.

(3) Filing of patent applications by the Contractor. The Contractor will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, or prior to the end of any 1-year statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Contractor's request for an extension of time. Requests for an extension of the time for disclosure, election, and filing under subparagraphs (c)(1), (2) and (3) may, at the discretion of Patent Counsel, be granted.

(5) Publication Approval. During the course of the work under this Contract, the Contractor or its employees may desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this Contract. In order that public disclosure of such information will not adversely affect the patent interest of DOE or the Contractor, approval for release or publication shall be secured from the Contractor personnel responsible for patent matters prior to any such release or publication. Where DOE's approval of publication is requested, DOE's response to such requests for approval shall normally be provided within 90 days except in circumstances in which a domestic patent application must be filed in order to protect foreign rights. In the case involving foreign patent rights,

DOE shall be granted an additional 180 days with which to respond to the request for approval, unless extended by mutual agreement.

(d) Conditions When the Government May Obtain Title.

The Contractor will convey to the DOE, upon written request, title to any subject invention-

(1) If the Contractor fails to disclose or elect title to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain title; provided, that DOE may only request title within sixty (60) days after learning of the failure of the Contractor to disclose or to elect within the specified times.

(2) In those countries in which the Contractor fails to file a patent application within the times specified in subparagraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in subparagraph (c) above, but prior to its receipt of the written request of the DOE, the Contractor shall continue to retain title in that country.

(3) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

(4) If the Contractor requests that DOE acquire title or rights from the Contractor in a subject invention to which the Contractor had initially retained title or rights, or in an exceptional circumstance subject invention to which the Contractor was granted greater rights, DOE may acquire such title or rights from the Contractor, or DOE may decide against acquiring such title or rights from the Contractor, at DOE's sole discretion.

(e) Minimum Rights of the Contractor and Protection of the Contractor's Right to File.

(1) Request for a Contractor license. The Contractor may request the right to reserve a revocable, nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. DOE may grant or refuse to grant such a request by the Contractor. When DOE approves such reservation, the Contractor's license will normally extend to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a party and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at

the time the contract was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Contractor's business to which the invention pertains.

(2) Revocation or modification of a Contractor license. The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR Part 404 and DOE licensing regulations at 10 CFR Part 781. This license will not be revoked in the field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the subject invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application of the subject invention in that foreign country.

(3) Notice of revocation of modification of a Contractor license. Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed thirty days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and DOE licensing regulations at 10 CFR part 781 concerning the licensing of Government owned inventions, any decision concerning the revocation or modification of the license.

(f) Contractor Action to Protect the Government's Interest.

(1) Execution of delivery of title or license instruments. The Contractor agrees to execute or to have executed, and promptly deliver to the Patent Counsel all instruments necessary to accomplish the following actions:

(i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title, and

(ii) convey title to DOE when requested under subparagraphs (b) or paragraph (d) of this clause and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) Contractor employee agreements. The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical

employees, to disclose promptly in writing to Contractor personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor, each subject invention made under this Contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) Notification of discontinuation of patent protection. The Contractor will notify the Patent Counsel of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) Notification of Government rights. The Contractor agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by (identify the Federal agency). The Government has certain rights in the invention."

(5) Invention Identification Procedures. The Contractor shall establish and maintain active and effective procedures to ensure that subject inventions are promptly identified and timely disclosed and shall submit a written description of such procedures to the Contracting Officer so that the Contracting Officer may evaluate and determine their effectiveness.

(6) Invention Filing Documentation. If the Contractor files a domestic or foreign patent application claiming a subject invention, the Contractor shall promptly submit to Patent Counsel, upon request, the following information and documents:

(i) the filing date, serial number, title, and a copy of the patent application (including an English-language version if filed in a language other than English);

(ii) an executed and approved instrument fully confirmatory of all Government rights in the subject invention; and

(iii) the patent number, issue date, and a copy of any issued patent claiming the subject invention.

(7) Duplication and disclosure of documents. The Government may duplicate and disclose subject invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause; provided, however, that any such duplication or disclosure by the Government is subject to the confidentiality provision at *35 U.S.C. 205* and 37 CFR Part 40.

(g) Subcontracts.

(1) Subcontractor subject inventions. The Contractor shall not obtain rights in the subcontractor's subject inventions as part of the consideration for awarding a subcontract.

(2) Inclusion of patent rights clause-non-profit organization or small business firm subcontractors. Unless otherwise authorized or directed by the Contracting Officer, the Contractor shall include the patent rights clause at 48 CFR 952.227-11, suitably modified to identify the Parties, in all subcontracts, at any tier, for experimental, developmental, demonstration or research work to be performed by a small business firm or domestic nonprofit organization, except subcontracts which are subject to exceptional circumstances in accordance with *35 U.S.C. 202* and subparagraph (b)(2) of this clause. The subcontractor retains all rights provided for the Contractor in the patent rights clause at 48 CFR 952.227-11.

(3) Inclusion of patent rights clause-Subcontractors other than non-profit organizations and small business firms. Except for the subcontracts described in subparagraph (g)(2) of this clause, the Contractor shall include the patent rights clause at 48 CFR 952.227-13, suitably modified to identify the Parties, in any contract for experimental, developmental, demonstration or research work. For subcontracts subject to exceptional circumstances, the Contractor must consult with DOE patent counsel with respect to the appropriate patent clause.

(4) DOE and Subcontractor contract. With respect to subcontracts at any tier, DOE, the Subcontractor, and the Contractor agree that the mutual obligations of the Parties created by this clause constitute a contract between the Subcontractor and DOE with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(5) Subcontractor refusal to accept terms of patent clause. If a prospective Subcontractor refuses to accept the terms of a patent rights clause, the Contractor shall promptly submit a written notice to the Contracting Officer stating the Subcontractor's reasons for such a refusal, including any relevant information for expediting disposition of the matter, and the Contractor shall not proceed with the subcontract without the written authorization of the Contracting Officer.

(6) Notification of award of subcontract. Upon the award of any subcontract at any tier containing a patent rights clause, the Contractor shall promptly notify the Contracting Officer in writing and identify the Subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Contracting Officer, the Contractor shall furnish a copy of a subcontract.

(7) Identification of Subcontractor subject inventions. If the Contractor in the performance of this contract becomes aware of a subject invention made under a subcontract, the Contractor shall promptly notify Patent Counsel and identify the subject invention.

(h) Reporting on Utilization of Subject Inventions. The Contractor agrees to submit to DOE on request, periodic reports, no more frequently than annually, on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by DOE in accordance with paragraph (j) of this clause. As required by *35 U.S.C. 202*(c)(5), DOE agrees it will not disclose such information to persons outside the Government without permission of the Contractor.

(i) Preference for United States Industry. Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in Rights. The Contractor agrees that, with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 37 CFR 401.6 and any DOE supplemental regulations to require the Contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and, if the Contractor, assignee or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that-

(1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived, or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Special Provisions for Contracts With Nonprofit Organizations. If the Contractor is a nonprofit organization, it agrees that-

(1) DOE approval of assignment of rights. Rights to a subject invention in the United States may not be assigned by the Contractor without the approval of DOE, except where such assignment is made to an organization which has as one of its primary functions the management of inventions; provided, that such assignee will be subject to the same provisions of this clause as the Contractor.

(2) Small business firm licensees. It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms, and that it will give a preference to a small business firm when licensing a subject invention if the Contractor determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Contractor. However, the Contractor agrees

that the Secretary of Commerce may review the Contractor's licensing program and decisions regarding small business firm applicants, and the Contractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when that Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of this subparagraph (k)(2).

(3) Contractor licensing of subject inventions. To the extent that it provides the most effective technology transfer, licensing of subject inventions shall be administered by Contractor employees on location at the facility.

(l) Communications. The Contractor shall direct any notification, disclosure or request provided for in this clause to the Patent Counsel assisting the DOE contracting activity.

(m) Reports.

(1) Interim reports. Upon DOE's request, the Contractor shall submit to DOE, no more frequently than annually, a list of subject inventions disclosed to DOE during a specified period, or a statement that no subject inventions were made during the specified period; and a list of subcontracts containing a patent clause and awarded by the Contractor during a specified period, or a statement that no such subcontracts were awarded during the specified period.

(2) Final reports. Upon DOE's request, the Contractor shall submit to DOE, prior to closeout of the Contract, a list of all subject inventions disclosed during the performance period of the Contract, or a statement that no subject inventions were made during the Contract performance period; and a list of all subcontracts containing a patent clause and awarded by the Contractor during the Contract performance period, or a statement that no such subcontracts were awarded during the Contract performance period.

(n) Examination of Records Relating to Subject Inventions.

(1) Contractor compliance. Until the expiration of three (3) years after final payment under this Contract, the Contracting Officer or any authorized representative may examine any books (including Laboratory notebooks), records, documents, and other supporting data of the Contractor, which the Contracting Officer or authorized representative deems reasonably pertinent to the discovery or identification of subject inventions, including exceptional circumstance subject inventions, or to determine Contractor compliance with any requirement of this clause.

(2) Unreported inventions. If the Contracting Officer is aware of an invention that is not disclosed by the Contractor to DOE, and the Contracting

Officer believes the unreported invention may be a subject invention, including exceptional circumstance subject inventions, DOE may require the Contractor to submit to DOE a disclosure of the invention for a determination of ownership rights.

(3) Confidentiality. Any examination of records under this paragraph is subject to appropriate conditions to protect the confidentiality of the information involved.

(4) Power of inspection. With respect to a subject invention for which the Contractor has responsibility for patent prosecution, the Contractor shall furnish the Government, upon request by DOE, an irrevocable power to inspect and make copies of a prosecution file for any patent application claiming the subject invention.

(o) Facilities License. In addition to the rights of the Parties with respect to inventions or discoveries conceived or first actually reduced to practice in the course of or under this Contract, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license in and to any inventions or discoveries regardless of when conceived or actually reduced to practice or acquired by the Contractor at any time through completion of this Contract and which are incorporated or embodied in the construction of the facility or which are utilized in the operation of the facility or which cover articles, materials, or product manufactured at the facility (1) to practice or have practiced by or for the Government at the facility, and (2) to transfer such license with the transfer of that facility. Notwithstanding the acceptance or exercise by the Government of these rights, the Government may contest at any time the enforceability, validity or scope of, or title to, any rights or patents herein licensed.

(p) Atomic Energy.

(1) Pecuniary awards. No claim for pecuniary award of compensation under the provisions of the Atomic Energy Act of 1954, as amended, may be asserted with respect to any invention or discovery made or conceived in the course of or under this Contract.

(2) Patent agreements. Except as otherwise authorized in writing by the Contracting Officer, the Contractor shall obtain patent agreements to effectuate the provisions of subparagraph (p)(1) of this clause from all persons who perform any part of the work under this Contract, except nontechnical personnel, such as clerical employees and manual laborers.

(q) Classified Inventions.

(1) Approval for filing a foreign patent application. The Contractor shall not file or cause to be filed an application or registration for a patent disclosing a subject invention related to classified subject matter in any country other than the United States without first obtaining the written approval of the Contracting Officer.

(2) Transmission of classified subject matter. If in accordance with this clause the Contractor files a patent application in the United States disclosing a subject invention that is classified for reasons of security, the Contractor shall observe all applicable security regulations covering the transmission of classified subject matter. If the Contractor transmits a patent application disclosing a classified subject invention to the United States Patent and Trademark Office (USPTO), the Contractor shall submit a separate letter to the USPTO identifying the contract or contracts by agency and agreement number that require security classification markings to be placed on the patent application.

(3) Inclusion of clause in subcontracts. The Contractor agrees to include the substance of this clause in subcontracts at any tier that cover or are likely to cover subject matter classified for reasons of security.

(r) Patent Functions. Upon the written request of the Contracting Officer or Patent Counsel, the Contractor agrees to make reasonable efforts to support DOE in accomplishing patent-related functions for work arising out of the Contract, including, but not limited to, the prosecution of patent applications, and the determination of questions of novelty, patentability, and inventorship.

(s) Educational Awards Subject to *35 U.S.C. 212.* The Contractor shall notify the Contracting Officer prior to the placement of any person subject to *35 U.S.C. 212* in an area of technology or task (1) related to exceptional circumstance technology or (2) which is subject to treaties or international agreements as set forth in paragraph (b)(3) of this clause or agreements other than funding agreements. The Contracting Officer may disapprove of any such placement.

(t) Annual Appraisal by Patent Counsel. Patent Counsel may conduct an annual appraisal to evaluate the Contractor's effectiveness in identifying and protecting subject inventions in accordance with DOE policy.

(End of clause)

I–100 970.5228-1 Insurance-Litigation and Claims (Mar 2002)

(a) The Contractor may, with the prior written authorization of the Contracting Officer, and shall, upon the request of the Government, initiate litigation against third Parties, including proceedings before administrative agencies, in connection with this Contract. The Contractor shall proceed with such litigation in good faith and as directed from time to time by the Contracting Officer.

(b) The Contractor shall give the Contracting Officer immediate notice in writing of any legal proceeding, including any proceeding before an administrative agency, filed against the Contractor arising out of the performance of this Contract. Except as otherwise directed by the Contracting Officer, in writing, the Contractor shall furnish immediately to the Contracting Officer copies of all pertinent papers received by the Contractor with respect to such action. The Contractor, with the prior written authorization of the Contracting Officer, shall proceed with such litigation in good faith and as directed from time to time by the Contracting Officer.

(c)

(1) Except as provided in paragraph (c)(2) of this clause, the Contractor shall procure and maintain such bonds and insurance as required by law or approved in writing by the Contracting Officer.

(2) The Contractor may, with the approval of the Contracting Officer, maintain a self-insurance program; provided that, with respect to workers' compensation, the Contractor is qualified pursuant to statutory authority.

(3) All bonds and insurance required by this clause shall be in a form and amount and for those periods as the Contracting Officer may require or approve and with sureties and insurers approved by the Contracting Officer.

(d) The Contractor agrees to submit for the Contracting Officer's approval, to the extent and in the manner required by the Contracting Officer, any other bonds and insurance that are maintained by the Contractor in connection with the performance of this Contract and for which the Contractor seeks reimbursement. If an insurance cost (whether a premium for commercial insurance or related to self-insurance) includes a portion covering costs made unallowable elsewhere in the Contract, and the share of the cost for coverage for the unallowable cost is determinable, the portion of the cost that is otherwise an allowable cost under this Contract is reimbursable to the extent determined by the Contracting Officer.

(e) Except as provided in subparagraphs (g) and (h) of this clause, or specifically disallowed elsewhere in this Contract, the Contractor shall be reimbursed-

(1) For that portion of the reasonable cost of bonds and insurance allocable to this Contract required in accordance with Contract terms or approved under this clause, and

(2) For liabilities (and reasonable expenses incidental to such liabilities, including litigation costs) to third persons not compensated by insurance or otherwise without regard to and as an exception to the clause of this Contract entitled "Obligation of Funds."

(f) The Government's liability under paragraph (e) of this clause is subject to the availability of appropriated funds. Nothing in this Contract shall be construed as implying that the Congress will, at a later date, appropriate funds sufficient to meet deficiencies.

(g) Notwithstanding any other provision of this Contract, the Contractor shall not be reimbursed for liabilities (and expenses incidental to such liabilities, including litigation costs, counsel fees, judgment and settlements)-

(1) Which are otherwise unallowable by law or the provisions of this Contract; or

(2) For which the Contractor has failed to insure or to maintain insurance as required by law, this Contract, or by the written direction of the Contracting Officer.

(h) In addition to the cost reimbursement limitations contained in 48 CFR Part 31, as supplemented by 48 CFR 970.31, and notwithstanding any other provision of this Contract, the Contractor's liabilities to third persons, including employees but excluding costs incidental to worker's compensation actions, (and any expenses incidental to such liabilities, including litigation costs, counsel fees, judgments and settlements) shall not be reimbursed if such liabilities were caused by Contractor managerial personnel's-

(1) Willful misconduct,

(2) Lack of good faith, or

(3) Failure to exercise prudent business judgment, which means failure to act in the same manner as a prudent person in the conduct of competitive business; or, in the case of a non-profit educational institution, failure to act in the manner that a prudent person would under the circumstances prevailing at the time the decision to incur the cost is made.

(i) The burden of proof shall be upon the Contractor to establish that costs covered by paragraph (h) of this clause are allowable and reasonable if, after an initial review of the facts, the Contracting Officer challenges a specific cost or informs the Contractor that there is reason to believe that the cost results from willful misconduct, lack of good faith, or failure to exercise prudent business judgment by Contractor managerial personnel.

(j)

(1) All litigation costs, including counsel fees, judgments and settlements shall be differentiated and accounted for by the Contractor so as to be separately identifiable. If the Contracting Officer provisionally disallows

such costs, then the Contractor may not use funds advanced by DOE under the Contract to finance the litigation.

(2) Punitive damages are not allowable unless the act or failure to act which gave rise to the liability resulted from compliance with specific terms and conditions of the Contract or written instructions from the Contracting Officer.

(3) The portion of the cost of insurance obtained by the Contractor that is allocable to coverage of liabilities referred to in paragraph (g)(1) of this clause is not allowable.

(4) The term "Contractor's managerial personnel" is defined in clause paragraph (j) of 48 CFR 970.5245-1 Property (Dec 2000) Alternate I (Dec 2000) (DEVIATION).

(k) The Contractor may at its own expense and not as an allowable cost procure for its own protection insurance to compensate the Contractor for any unallowable or unreimbursable costs incurred in connection with Contract performance.

(l) If any suit or action is filed or any claim is made against the Contractor, the cost and expense of which may be reimbursable to the Contractor under this Contract, and the risk of which is then uninsured or is insured for less than the amount claimed, the Contractor shall-

(1) Immediately notify the Contracting Officer and promptly furnish copies of all pertinent papers received;

(2) Authorize Department representatives to collaborate with: in-house or DOE-approved outside counsel in settling or defending the claim; or counsel for the insurance carrier in settling or defending the claim if the amount of the liability claimed exceeds the amount of coverage, unless precluded by the terms of the insurance contract; and

(3) Authorize Department representatives to settle the claim or to defend or represent the Contractor in and/or to take charge of any litigation, if required by the Department, if the liability is not insured or covered by bond. In any action against more than one Department Contractor, the Department may require the Contractor to be represented by common counsel. Counsel for the Contractor may, at the Contractor's own expense, be associated with the Department representatives in any such claim or litigation.

(End of Clause)

I–101 970.5229-1 State and Local Taxes (Dec 2000)

(a) The Contractor agrees to notify the Contracting Officer of any State or local tax, fee, or charge levied or purported to be levied on or collected from the Contractor with respect to the Contract work, any transaction thereunder, or property in the custody or control of the Contractor and constituting an allowable item of cost if due and payable, but which the Contractor has reason to believe, or the Contracting Officer has advised the Contractor, is or may be inapplicable or invalid; and the Contractor further agrees to refrain from paying any such tax, fee, or charge unless authorized in writing by the Contracting Officer. Any State or local tax, fee, or charge paid with the approval of the Contracting Officer or on the basis of advice from the Contracting Officer that such tax, fee, or charge is applicable and valid, and which would otherwise be an allowable item of cost, shall not be disallowed as an item of cost by reason of any subsequent ruling or determination that such tax, fee, or charge was in fact inapplicable or invalid.

(b) The Contractor agrees to take such action as may be required or approved by the Contracting Officer to cause any State or local tax, fee, or charge which would be an allowable cost to be paid under protest; and to take such action as may be required or approved by the Contracting Officer to seek recovery of any payments made, including assignment to the Government or its designee of all rights to an abatement or refund thereof, and granting permission for the Government to join with the Contractor in any proceedings for the recovery thereof or to sue for recovery in the name of the Contractor. If the Contracting Officer directs the Contractor to institute litigation to enjoin the collection of or to recover payment of any such tax, fee, or charge referred to above, or if a claim or suit is filed against the Contractor for a tax, fee, or charge it has refrained from paying in accordance with this clause, the procedures and requirements of the clause entitled "Insurance-Litigation and Claims" shall apply and the costs and expenses incurred by the Contractor shall be allowable items of costs, as provided in this Contract, together with the amount of any judgment rendered against the Contractor.

(c) The Government shall hold the Contractor harmless from penalties and interest incurred through compliance with this clause. All recoveries or credits in respect of the foregoing taxes, fees, and charges (including interest) shall inure to and be for the sole benefit of the Government.

(End of Clause)

I–102 970.5231-4 Preexisting Conditions (Dec 2000) Alternate I (Dec 2000)

(a) Any liability, obligation, loss, damage, claim (including without limitation, a claim involving strict or absolute liability), action, suit, civil fine or penalty, cost, expense or disbursement, which may be incurred or imposed, or asserted by any party and arising out of any condition, act or failure to act which occurred before

October 1, 1998, in conjunction with the management and operation of the Pacific Northwest National Laboratory, shall be deemed incurred under Contract No. DE-AC06-76RL01830.

(b) The obligations of the Department of Energy under this clause are subject to the availability of appropriated funds.

(End of Clause)

I–103 970.5232-1 Reduction or Suspension of Advance, Partial, or Progress Payments (Dec 2000)

(a) The Contracting Officer may reduce or suspend further advance, partial, or progress payments to the Contractor upon a written determination by the Senior Procurement Executive that substantial evidence exists that the Contractor's request for advance, partial, or progress payment is based on fraud.

(b) The Contractor shall be afforded a reasonable opportunity to respond in writing.

(End of Clause)

I–104 970.5232-2 Payments and Advances (Dec 2000) Alternate II (Dec 2000) Alternate III (Dec 2000) (DEVIATION)

(a) Payment of Total available fee: Base Fee and Performance Fee. The base fee amount, if any, is payable in equal monthly installments. Total available fee amount earned is payable following the Government's Determination of Total Available Fee Amount Earned in accordance with the clause of this Contract entitled "Total Available Fee: Base Fee Amount and Performance Fee Amount." Contractor performance fee shall be provisionally payable in accordance with the following:

(1) Monthly Provisional Fee Payments. The Contractor may withdraw against the payments cleared financing arrangement, up to one-twelfth (1/12) of 90% of the performance fee for the fiscal year, on the first day of each month, unless otherwise instructed in writing by the Contracting Officer.

(2) End of Year Provisional Fee Payment. Concurrent with the submittal to DOE of the Contractor’s final self-assessment report for the fiscal year, and using the ratings contained in the report, the Contractor will provide to DOE an expected amount of performance fee earned, with that amount calculated as 95% of the anticipated amount of performance fee earned in accordance with the Performance Evaluation and Fee Agreement in Appendix E. Fifteen (15) calendar days after submittal of the fee calculation, the Contractor may withdraw not-to-exceed the expected amount of performance fee earned minus the cumulative provisional fee withdrawn to-date for the fiscal year, unless otherwise instructed in writing by the Contracting Officer.

(3) Final Fee Payment. Following DOE's Determination of Total Available Fee Amount Earned, the Contractor is authorized to withdraw any amount of earned fee over the amount previously paid on a provisional basis from the payments cleared financing arrangement. In the event DOE determines there has been an overpayment to the Contractor, such overpayment plus interest shall be redeposited to the payments cleared financing arrangement within 30 calendar days, or otherwise used as directed by the Contracting Officer. Interest shall be computed from the date of overpayment to the date of repayment using the interest rate specified by the Secretary of the Treasury pursuant to Pub. L. 92-41 (85 Stat. 97).

Notwithstanding the above, base fee amount, total available fee amount earned, and provisional fee payments shall be made by direct payment or withdrawn from funds advanced or available under this Contract, unless otherwise directed in writing by the Contracting Officer. The Contracting Officer may offset against any such fee payment the amounts owed to the Government by the Contractor, including any amounts owed for disallowed costs under this Contract. Base fee amount, total available fee amount earned, and provisional fee payment may be withdrawn against the payments cleared financing arrangement unless otherwise directed in writing by the Contracting Officer.

(b) Payments on Account of Allowable Costs. The Contracting Officer and the Contractor shall agree as to the extent to which payment for allowable costs or payments for other items specifically approved in writing by the Contracting Officer (for example, negotiated fixed amounts) shall be made from advances of Government funds. When pension contributions are paid by the Contractor to the retirement fund less frequently than quarterly, accrued costs therefor shall be excluded from costs for payment purposes until such costs are paid. If pension contributions are paid on a quarterly or more frequent basis, accrual therefor may be included in costs for payment purposes, provided that they are paid to the fund within 30 days after the close of the period covered. If payments are not made to the fund within such 30-day period, pension contribution costs shall be excluded from cost for payment purposes until payment has been made.

(c) Special financial institution account-use. All advances of Government funds shall be withdrawn pursuant to a payments cleared financing arrangement prescribed by DOE in favor of the financial institution or, at the option of the Government, shall be made by direct payment or other payment mechanism to the Contractor, and shall be deposited only in the special financial institution account referred to in the Special Financial Institution Account Agreement, which is incorporated into this Contract as Appendix B. No part of the funds in the special financial institution account shall be commingled with any funds of the Contractor or used for a purpose other than that of making payments for costs allowable and, if applicable, fees earned under this Contract, negotiated fixed amounts, or

payments for other items specifically approved in writing by the Contracting Officer. If the Contracting Officer determines that the balance of such special financial institution account exceeds the Contractor's current needs, the Contractor shall promptly make such disposition of the excess as the Contracting Officer may direct.

(d) Title to funds advanced. Title to the unexpended balance of any funds advanced and of any special financial institution account established pursuant to this clause shall remain in the Government and be superior to any claim or lien of the financial institution of deposit or others. It is understood that an advance to the Contractor hereunder is not a loan to the Contractor, and will not require the payment of interest by the Contractor, and that the Contractor acquires no right, title or interest in or to such advance other than the right to make expenditures therefrom, as provided in this clause.

(e) Financial settlement. The Government shall promptly pay to the Contractor the unpaid balance of allowable costs (or other items specifically approved in writing by the Contracting Officer) and fee upon termination of the work, expiration of the term of the Contract, or completion of the work and its acceptance by the Government after:

(1) Compliance by the Contractor with DOE's patent clearance requirements, and

(2) The furnishing by the Contractor of:

(i) An assignment of the Contractor's rights to any refunds, rebates, allowances, accounts receivable, collections accruing to the Contractor in connection with the work under this Contract, or other credits applicable to allowable costs under the Contract;

(ii) A closing financial statement;

(iii) The accounting for Government-owned property required by the clause entitled "Property"; and

(iv) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this Contract subject only to the following exceptions:

(A) Specified claims in stated amounts or in estimated amounts where the amounts are not susceptible to exact statement by the Contractor;

(B) Claims, together with reasonable expenses incidental thereto, based upon liabilities of the Contractor to third

Parties arising out of the performance of this Contract; provided that such claims are not known to the Contractor on the date of the execution of the release; and provided further that the Contractor gives notice of such claims in writing to the Contracting Officer promptly, but not more than one (1) year after the Contractor's right of action first accrues. In addition, the Contractor shall provide prompt notice to the Contracting Officer of all potential claims under this clause, whether in litigation or not (see also Contract Clause--, DEAR 970.5228-1, "Insurance-Litigation and Claims");

(C) Claims for reimbursement of costs (other than expenses of the Contractor by reason of any indemnification of the Government against patent liability), including reasonable expenses incidental thereto, incurred by the Contractor under the provisions of this Contract relating to patents; and

(D) Claims recognizable under the clause entitled, Nuclear Hazards Indemnity Agreement.

(3) In arriving at the amount due the Contractor under this clause, there shall be deducted,

(i) Any claim which the Government may have against the Contractor in connection with this Contract, and

(ii) Deductions due under the terms of this Contract, and not otherwise recovered by or credited to the Government. The unliquidated balance of the special financial institution account may be applied to the amount due and any balance shall be returned to the Government forthwith.

(f) Claims. Claims for credit against funds advanced for payment shall be accompanied by such supporting documents and justification as the Contracting Officer shall prescribe.

(g) Discounts. The Contractor shall take and afford the Government the advantage of all known and available cash and trade discounts, rebates, allowances, credits, salvage, and commissions unless the Contracting Officer finds that action is not in the best interest of the Government.

(h) Collections. All collections accruing to the Contractor in connection with the work under this Contract, except for the Contractor's fee and royalties or other income accruing to the Contractor from technology transfer activities in

accordance with this Contract, shall be Government property and shall be processed and accounted for in accordance with applicable requirements imposed by the Contracting Officer pursuant to the Laws, regulations, and DOE directives clause of this Contract and, to the extent consistent with those requirements, shall be deposited in the special financial institution account or otherwise made available for payment of allowable costs under this Contract, unless otherwise directed by the Contracting Officer.

(i) Direct payment of charges. The Government reserves the right, upon ten days written notice from the Contracting Officer to the Contractor, to pay directly to the persons concerned, all amounts due which otherwise would be allowable under this Contract. Any payment so made shall discharge the Government of all liability to the Contractor therefor.

(j) Determining allowable costs. The Contracting Officer shall determine allowable costs in accordance with the Federal Acquisition Regulation subpart 31.2 and the Department of Energy Acquisition Regulation subpart 48 CFR 970.31 in effect on the date of this Contract and other provisions of this Contract.

(k) Review and approval of costs incurred. The Contractor shall prepare and submit annually as of September 30, a "Statement of Costs Incurred and Claimed" (Cost Statement) for the total of net expenditures accrued (i.e., net costs incurred) for the period covered by the Cost Statement. The Contractor shall certify the Cost Statement subject to the penalty provisions for unallowable costs as stated in sections 306(b) and (i) of the Federal Property and Administrative Services Act of 1949 *(41 U.S.C. 256),* as amended. DOE, after audit and appropriate adjustment, will approve such Cost Statement. This approval by DOE will constitute an acknowledgment by DOE that the net costs incurred are allowable under the Contract and that they have been recorded in the accounts maintained by the Contractor in accordance with DOE accounting policies, but will not relieve the Contractor of responsibility for DOE's assets in its care, for appropriate subsequent adjustments, or for errors later becoming known to DOE.

(End of Clause)

I–105 970.5232-3 Accounts, Records, and Inspection (Dec 2000) Alternate II (Dec 2000)

(a) Accounts. The Contractor shall maintain a separate and distinct set of accounts, records, documents, and other evidence showing and supporting: all allowable costs incurred; collections accruing to the Contractor in connection with the work under this Contract, other applicable credits, negotiated fixed amounts, and fee accruals under this Contract; and the receipt, use, and disposition of all Government property coming into the possession of the Contractor under this Contract. The system of accounts employed by the Contractor shall be satisfactory to DOE and in accordance with generally accepted accounting principles consistently applied.

(b) Inspection and audit of accounts and records. All books of account and records relating to this Contract shall be subject to inspection and audit by DOE or its designees in accordance with the provisions of Clause--, Access to and ownership of records, at all reasonable times, before and during the period of retention provided for in paragraph (d) of this clause, and the Contractor shall afford DOE proper facilities for such inspection and audit.

(c) Audit of Subcontractors' records. The Contractor also agrees, with respect to any subcontracts (including fixed-price or unit-price subcontracts or purchase orders) where, under the terms of the subcontract, costs incurred are a factor in determining the amount payable to the subcontractor of any tier, to either conduct an audit of the subcontractor's costs or arrange for such an audit to be performed by the cognizant Government audit agency through the Contracting Officer.

(d) Disposition of records. Except as agreed upon by the Government and the Contractor, all financial and cost reports, books of account and supporting documents, system files, data bases, and other data evidencing costs allowable, collections accruing to the Contractor in connection with the work under this Contract, other applicable credits, and fee accruals under this Contract, shall be the property of the Government, and shall be delivered to the Government or otherwise disposed of by the Contractor either as the Contracting Officer may from time to time direct during the progress of the work or, in any event, as the Contracting Officer shall direct upon completion or termination of this Contract and final audit of accounts hereunder. Except as otherwise provided in this Contract, including provisions of Clause--, Access to and ownership of records, all other records in the possession of the Contractor relating to this Contract shall be preserved by the Contractor for a period of three years after final payment under this Contract or otherwise disposed of in such manner as may be agreed upon by the Government and the Contractor.

(e) Reports. The Contractor shall furnish such progress reports and schedules, financial and cost reports, and other reports concerning the work under this Contract as the Contracting Officer may from time to time require.

(f) Inspections. The DOE shall have the right to inspect the work and activities of the Contractor under this Contract at such time and in such manner as it shall deem appropriate.

(g) Subcontracts. The Contractor further agrees to require the inclusion of provisions similar to those in paragraphs (a) through (g) and paragraph (h) of this clause in all subcontracts (including fixed-price or unit-price subcontracts or purchase orders) of any tier entered into hereunder where, under the terms of the subcontract, costs incurred are a factor in determining the amount payable to the subcontractor.

(h) Comptroller General.

(1) The Comptroller General of the United States, or an authorized representative, shall have access to and the right to examine any of the Contractor's directly pertinent records involving transactions related to this Contract or a subcontract hereunder.

(2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(3) Nothing in this Contract shall be deemed to preclude an audit by the General Accounting Office of any transaction under this Contract.

(i) Internal audit. The Contractor agrees to conduct an internal audit and examination satisfactory to DOE of the records, operations, expenses, and the transactions with respect to costs claimed to be allowable under this Contract annually and at such other times as may be mutually agreed upon. The results of such audit, including the working papers, shall be submitted or made available to the Contracting Officer. The Contractor shall include this paragraph (i) in all cost-reimbursement subcontracts with an estimated cost exceeding $5 million and expected to run for more than 2 years, and any other cost-reimbursement subcontract determined by the Head of the Contracting Activity.

(End of Clause)

I–106 970.5232-4 Obligation of Funds (Dec 2000)

(a) Obligation of funds. The amount presently obligated by the Government with respect to this Contract is specified in Section B, clause entitled “Obligated Funds”. Such amount may be increased unilaterally by DOE by written notice to the Contractor and may be increased or decreased by written agreement of the Parties (whether or not by formal modification of this Contract). Estimated collections from others for work and services to be performed under this Contract are not included in the amount presently obligated. Such collections, to the extent actually received by the Contractor, shall be processed and accounted for in accordance with applicable requirements imposed by the Contracting Officer pursuant to the Laws, regulations, and DOE directives clause of this Contract. Nothing in this paragraph is to be construed as authorizing the Contractor to exceed limitations stated in financial plans established by DOE and furnished to the Contractor from time to time under this Contract.

(b) Limitation on payment by the Government. Except as otherwise provided in this Contract and except for costs which may be incurred by the Contractor pursuant to the Termination clause of this Contract or costs of claims allowable under the Contract occurring after completion or termination and not released by the Contractor at the time of financial settlement of the Contract in accordance with the clause entitled "Payments and Advances," payment by the Government under

this Contract on account of allowable costs shall not, in the aggregate, exceed the amount obligated with respect to this Contract, less the Contractor's fee and any negotiated fixed amount. Unless expressly negated in this Contract, payment on account of those costs excepted in the preceding sentence which are in excess of the amount obligated with respect to this Contract shall be subject to the availability of:

(1) collections accruing to the Contractor in connection with the work under this Contract and processed and accounted for in accordance with applicable requirements imposed by the Contracting Officer pursuant to the Laws, regulations, and DOE directives clause of this Contract, and

(2) other funds which DOE may legally use for such purpose, provided DOE will use its best efforts to obtain the appropriation of funds for this purpose if not otherwise available.

(c) Notices-Contractor excused from further performance. The Contractor shall notify DOE in writing whenever the unexpended balance of available funds (including collections available under paragraph (a) of this clause), plus the Contractor's best estimate of collections to be received and available during the 45-day period hereinafter specified, is in the Contractor's best judgment sufficient to continue Contract operations at the programmed rate for only 45 days and to cover the Contractor's unpaid fee and any negotiated fixed amounts, and outstanding encumbrances and liabilities on account of costs allowable under the Contract at the end of such period. Whenever the unexpended balance of available funds (including collections available under paragraph (a) of this clause), less the amount of the Contractor's fee then earned but not paid and any negotiated fixed amounts, is in the Contractor's best judgment sufficient only to liquidate outstanding encumbrances and liabilities on account of costs allowable under this Contract, the Contractor shall immediately notify DOE and shall make no further encumbrances or expenditures (except to liquidate existing encumbrances and liabilities), and, unless the Parties otherwise agree, the Contractor shall be excused from further performance (except such performance as may become necessary in connection with termination by the Government) and the performance of all work hereunder will be deemed to have been terminated for the convenience of the Government in accordance with the provisions of the Termination clause of this Contract.

(d) Financial plans; cost and encumbrance limitations. In addition to the limitations provided for elsewhere in this Contract, DOE may, through financial plans, such as Approved Funding Programs, or other directives issued to the Contractor, establish controls on the costs to be incurred and encumbrances to be made in the performance of the Contract work. Such plans and directives may be amended or supplemented from time to time by DOE. The Contractor agrees

(1) to comply with the specific limitations (ceilings) on costs and encumbrances set forth in such plans and directives,

(2) to comply with other requirements of such plans and directives, and

(3) to notify DOE promptly, in writing, whenever it has reason to believe that any limitation on costs and encumbrances will be exceeded or substantially underrun.

(e) Government's right to terminate not affected. The giving of any notice under this clause shall not be construed to waive or impair any right of the Government to terminate the Contract under the provisions of the Termination clause of this Contract.

(End of Clause)

I–107 970.5232-5 Liability with Respect to Cost Accounting Standards (Dec 2000)

(a) The Contractor is not liable to the Government for increased costs or interest resulting from its failure to comply with the clauses of this Contract entitled, "Cost Accounting Standards," and "Administration of Cost Accounting Standards," if its failure to comply with the clauses is caused by the Contractor's compliance with published DOE financial management policies and procedures or other requirements established by the Department's Chief Financial Officer or Procurement Executive.

(b) The Contractor is not liable to the Government for increased costs or interest resulting from its Subcontractors' failure to comply with the clauses at FAR 52.230-2, "Cost Accounting Standards," and FAR 52.230-6, "Administration of Cost Accounting Standards," if the Contractor includes in each covered subcontract a clause making the Subcontractor liable to the Government for increased costs or interest resulting from the Subcontractor's failure to comply with the clauses; and the Contractor seeks the subcontract price adjustment and cooperates with the Government in the Government's attempts to recover from the Subcontractor.

(End of Clause)

I–108 970.5232-6 Work for Others Funding Authorization (Dec 2000)

Any uncollectible receivables resulting from the Contractor utilizing Contractor corporate funding for reimbursable work shall be the responsibility of the Contractor, and the United States Government shall have no liability to the Contractor for the Contractor's uncollected receivables. The Contractor is permitted to provide advance payment utilizing Contractor corporate funds for reimbursable work to be performed by the Contractor for a non-Federal entity in instances where advance payment from that entity is required under the Laws, regulations, and DOE directives clause of this Contract and such advance cannot be obtained. The Contractor is also permitted to provide advance payment utilizing Contractor corporate funds to continue reimbursable work to be

performed by the Contractor for a Federal entity when the term or the funds on a Federal interagency agreement required under the Laws, regulations, and DOE directives clause of this Contract have elapsed. The Contractor's utilization of Contractor corporate funds does not relieve the Contractor of its responsibility to comply with all requirements for Work for Others applicable to this Contract.

(End of Clause)

I–109 970.5232-7 Financial Management System (Dec 2000)

The Contractor shall maintain and administer a financial management system that is suitable to provide proper accounting in accordance with DOE requirements for assets, liabilities, collections accruing to the Contractor in connection with the work under this Contract, expenditures, costs, and encumbrances; permits the preparation of accounts and accurate, reliable financial and statistical reports; and assures that accountability for the assets can be maintained. The Contractor shall submit to DOE for written approval an annual plan for new financial management systems and/or subsystems and major enhancements and/or upgrades to the currently existing financial systems and/or subsystems. The Contractor shall notify DOE thirty (30) days in advance of any planned implementation of any substantial deviation from this plan and, as requested by the Contracting Officer, shall submit any such deviation to DOE for written approval before implementation.

(End of Clause)

I–110 970.5232-8 Integrated Accounting (Dec 2000)

Integrated accounting procedures are required for use under this Contract. The Contractor's financial management system shall include an integrated accounting system that is linked to DOE's accounts through the use of reciprocal accounts and that has electronic capability to transmit monthly and year-end self-balancing trial balances to the Department's Primary Accounting System for reporting financial activity under this Contract in accordance with requirements imposed by the Contracting Officer pursuant to the Laws, regulations, and DOE directives clause of this Contract.

(End of Clause)

I–111 970.5235-1 Federally Funded Research and Development Center Sponsoring Agreement (Dec 2000)

[This clause only applies to work performed under this Contract and does not apply to work performed under Agreement DE-GM06-00RL01831.]

(a) Pursuant to 48 CFR 35.017-1, this Contract constitutes the sponsoring agreement between the Department of Energy and the Contractor, which establishes the relationship for the operation of a Department of Energy sponsored Federally Funded Research and Development Center (FFRDC).

(b) In the operation of this FFRDC, the Contractor may be provided access beyond that which is common to the normal contractual relationship, to Government and

supplier data, including sensitive and proprietary data, and to Government employees and facilities needed to discharge its responsibilities efficiently and effectively. Because of this special relationship, it is essential that the FFRDC be operated in the public interest with objectivity and independence, be free from organizational conflicts of interest, and have full disclosure of its affairs to the Department of Energy.

(c) Unless otherwise provided by the Contract, the Contractor may accept work from a nonsponsor (as defined in 48 CFR 35.017) in accordance with the requirements and limitations of DOE Order 481.1, Work for Others (Non-Department of Energy Funded Work) (see current version).

(d) As an FFRDC, the Contractor shall not use its privileged information or access to Government facilities to compete with the private sector. Specific guidance on restricted activities is contained in DOE Order 481.1.

(End of Clause)

I–112 970.5236-1 Government Facility Subcontract Approval (Dec 2000)

Upon request of the Contracting Officer and acceptance thereof by the Contractor, the Contractor shall procure, by subcontract, the construction of new facilities or the alteration or repair of Government-owned facilities at the plant. Any subcontract entered into under this paragraph shall be subject to the written approval of the Contracting Officer and shall contain the provisions relative to labor and wages required by law to be included in contracts for the construction, alteration, and/or repair, including painting and decorating, of a public building or public work.

(End of Clause)

I–113 970.5242-1 Penalties for Unallowable Costs (Dec 2000)

(a) Contractors which include unallowable cost in a submission for settlement for cost incurred, may be subject to penalties.

(b) If, during the review of a submission for settlement of cost incurred, the Contracting Officer determines that the submission contains an expressly unallowable cost or a cost determined to be unallowable prior to the submission, the Contracting Officer shall assess a penalty.

(c) Unallowable costs are either expressly unallowable or determined unallowable.

(1) An expressly unallowable cost is a particular item or type of cost which, under the express provisions of an applicable law, regulation, or this Contract, is specifically named and stated to be unallowable.

(2) A cost determined unallowable is one which, for that Contractor,

(i) was subject to a Contracting Officer's final decision and not appealed;

(ii) the Department's Board of Contract Appeals or a court has previously ruled as unallowable; or

(iii) was mutually agreed to be unallowable.

(d) If the Contracting Officer determines that a cost submitted by the Contractor in its submission for settlement of cost incurred is:

(1) expressly unallowable, then the Contracting Officer shall assess a penalty in an amount equal to the disallowed cost allocated to this Contract plus interest on the paid portion of the disallowed cost. Interest shall be computed from the date of overpayment to the date of repayment using the interest rate specified by the Secretary of the Treasury pursuant to Pub. L. 92-41 (85 Stat. 97); or

(2) determined unallowable, then the Contracting Officer shall assess a penalty in an amount equal to two times the amount of the disallowed cost allocated to this Contract.

(e) The Contracting Officer may waive the penalty provisions when

(1) the Contractor withdraws the submission before the formal initiation of an audit of the submission and submits a revised submission;

(2) the amount of the unallowable costs allocated to covered contracts is $10,000 or less; or

(3) the Contractor demonstrates to the Contracting Officer's satisfaction that:

(i) it has established appropriate policies, personnel training, and an internal control and review system that provides assurances that unallowable costs subject to penalties are precluded from the Contractor's submission for settlement of costs; and

(ii) the unallowable costs subject to the penalty were inadvertently incorporated into the submission.

(End of Clause)

I–114 970.5243-1 Changes (Dec 2000)

(a) Changes and adjustment of fee. The Contracting Officer may at any time and without notice to the sureties, if any, issue written directions within the general scope of this Contract requiring additional work or directing the omission of, or variation in, work covered by this Contract. If any such direction results in a

material change in the amount or character of the work described in the "Statement of Work," an equitable adjustment of the fee, if any, shall be made in accordance with the agreement of the Parties and the Contract shall be modified in writing accordingly. Any claim by the Contractor for an adjustment under this clause must be asserted in writing within 30 days from the date of receipt by the Contractor of the notification of change; provided, however, that the Contracting Officer, if it is determined that the facts justify such action, may receive and act upon any such claim asserted at any time prior to final payment under this Contract. A failure to agree on an equitable adjustment under this clause shall be deemed to be a dispute within the meaning of the clause entitled "Disputes."

(b) Work to continue. Nothing contained in this clause shall excuse the Contractor from proceeding with the prosecution of the work in accordance with the requirements of any direction hereunder.

(End of Clause)

I–115 970.5244-1 Contractor Purchasing System (Dec 2000) (DEVIATION) (Includes modifications in final rule dated 1/18/01.)

(a) General. The Contractor shall develop, implement, and maintain formal policies, practices, and procedures to be used in the award of subcontracts consistent with this clause and 48 CFR 970.44. The Contractor's purchasing system and methods shall be fully documented, consistently applied, and acceptable to DOE in accordance with 48 CFR 970.4401-1. The Contractor shall maintain file documentation which is appropriate to the value of the purchase and is adequate to establish the propriety of the transaction and the price paid. The Contractor's purchasing performance will be evaluated against such performance criteria and measures as may be set forth elsewhere in this Contract. DOE reserves the right at any time to require that the Contractor submit for approval any or all purchases under this Contract. The Contractor shall not purchase any item or service the purchase of which is expressly prohibited by the written direction of DOE and shall use such special and directed sources as may be expressly required by the DOE Contracting Officer. DOE will conduct periodic appraisals of the Contractor's management of all facets of the purchasing function, including the Contractor's compliance with its approved system and methods. Such appraisals will be performed through the conduct of Contractor Purchasing System Reviews in accordance with 48 CFR subpart 44.3, or, when approved by the Contracting Officer, through the Contractor's participation in the conduct of the Balanced Scorecard performance measurement and performance management system. The Contractor's approved purchasing system and methods shall include the requirements set forth in paragraphs (b) through (y) of this clause.

(b) Acquisition of utility services. Utility services shall be acquired in accordance with the requirements of 48 CFR 970.41.

(c) Acquisition of Real Property. Real property shall be acquired in accordance with 48 CFR Subpart 917.74.

(d) Advance Notice of Proposed Subcontract Awards. Advance notice shall be provided in accordance with 48 CFR 970.4401-3.

(e) Audit of Subcontractors.

(1) The Contractor shall provide for:

(i) periodic post-award audit of cost-reimbursement Subcontractors at all tiers, and

(ii) audits, where necessary, to provide a valid basis for pre-award or cost or price analysis.

(2) Responsibility for determining the costs allowable under each cost-reimbursement subcontract remains with the Contractor or next higher-tier Subcontractor. The Contractor shall provide, in appropriate cases, for the timely involvement of the Contractor and the DOE Contracting Officer in resolution of subcontract cost allowability.

(3) Where audits of Subcontractors at any tier are required, arrangements may be made to have the cognizant Federal agency perform the audit of the subcontract. These arrangements shall be made administratively between DOE and the other agency involved and shall provide for the cognizant agency to audit in an appropriate manner in light of the magnitude and nature of the subcontract. In no case, however, shall these arrangements preclude determination by the DOE Contracting Officer of the allowability or unallowability of Subcontractor costs claimed for reimbursement by the Contractor.

(4) Allowable costs for cost reimbursable subcontracts are to be determined in accordance with the cost principles of 48 CFR Part 31, appropriate for the type of organization to which the subcontract is to be awarded, as supplemented by 48 CFR Part 931. Allowable costs in the purchase or transfer from Contractor-affiliated sources shall be determined in accordance with 48 CFR 970.4402-3 and 48 CFR 970.3102-3-21(b).

(f) Bonds and Insurance.

(1) The Contractor shall require performance bonds in penal amounts as set forth in 48 CFR 28.102-2(a) for all fixed priced and unit-priced construction subcontracts in excess of $100,000. The Contractor shall consider the use of performance bonds in fixed price nonconstruction subcontracts, where appropriate.

(2) For fixed-price, unit-priced and cost reimbursement construction subcontracts in excess of $100,000 a payment bond shall be obtained on Standard Form 25A modified to name the Contractor as well as the United

States of America as obligees. The penal amounts shall be determined in accordance with 48 CFR 28.102-2(b).

(3) For fixed-price, unit-priced and cost-reimbursement construction subcontracts, greater than $25,000, but not greater than $100,000, the Contractor shall select two or more of the payment protections at 48 CFR 28.102-1(b), giving particular consideration to the inclusion of an irrevocable letter of credit as one of the selected alternatives.

(4) A Subcontractor may have more than one acceptable surety in both construction and other subcontracts, provided that in no case will the liability of any one surety exceed the maximum penal sum for which it is qualified for any one obligation. For subcontracts other than construction, a co-surety (two or more sureties together) may reinsure amounts in excess of their individual capacity, with each surety having the required underwriting capacity that appears on the list of acceptable corporate sureties.

(g) Buy American. The Contractor shall comply with the provisions of the Buy American Act as reflected in 48 CFR 52.225-1 (May 2002), as amended by AL 2002-06 and 48 CFR 52.225-9 (May 2002), as amended by AL 2002-06. The Contractor shall forward determinations of nonavailability of individual items to the DOE Contracting Officer for approval. Items in excess of $100,000 require the prior concurrence of the Head of Contracting Activity. If, however, the Contractor has an approved purchasing system, the Head of the Contracting Activity may authorize the Contractor to make determinations of nonavailability for individual items valued at $100,000 or less.

(h) Construction and Architect-Engineer Subcontracts.

(1) Independent Estimates. A detailed, independent estimate of costs shall be prepared for all construction work to be subcontracted.

(2) Specifications. Specifications for construction shall be prepared in accordance with the DOE publication entitled "General Design Criteria Manual."

(3) Prevention of Conflict of Interest.

(i) The Contractor shall not award a subcontract for construction to the architect-engineer firm or an affiliate that prepared the design. This prohibition does not preclude the award of a "turnkey" subcontract so long as the Subcontractor assumes all liability for defects in design and construction and consequential damages.

(ii) The Contractor shall not award both a cost-reimbursement subcontract and a fixed-price subcontract for construction or

architect-engineer services or any combination thereof to the same firm where those subcontracts will be performed at the same site.

(iii) The Contractor shall not employ the construction Subcontractor or an affiliate to inspect the firm's work. The Contractor shall assure that the working relationships of the construction Subcontractor and the Subcontractor inspecting its work and the authority of the inspector are clearly defined.

(i) Contractor-Affiliated Sources. Equipment, materials, supplies, or services from a Contractor-affiliated source shall be purchased or transferred in accordance with 48 CFR 970.4402-3.

(j) Contractor-Subcontractor Relationship. The obligations of the Contractor under paragraph (a) of this clause, including the development of the purchasing system and methods, and purchases made pursuant thereto, shall not relieve the Contractor of any obligation under this Contract (including, among other things, the obligation to properly supervise, administer, and coordinate the work of Subcontractors). Subcontracts shall be in the name of the Contractor, and shall not bind or purport to bind the Government.

(k) Government Property. Identification, inspection, maintenance, protection, and disposition of Government property shall conform with the policies and principles of 48 CFR Part 45, 48 CFR 945, the Federal Property Management Regulations 41 CFR Chapter 101, the DOE Property Management Regulations 41 CFR Chapter 109, and their contracts.

(l) Indemnification. Except for Price-Anderson Nuclear Hazards Indemnity, no Subcontractor may be indemnified except with the prior approval of the Senior Procurement Executive.

(m) Leasing of Motor Vehicles. Contractors shall comply with 48 CFR 8.11 and 48 CFR 908.11.

(n) Acquisition of Major System (MS) Projects and Other Projects (as defined in DOE O 413.3, Program and Project Management for the Acquisition of Capital Assets). As part of the Acquisition Planning process, Contractors shall conduct a make-or-buy analysis in determining whether requirements will be self-performed or subcontracted to ensure the selection of the most cost effective method.

(o) Management, Acquisition and Use of Information Resources. Requirements for automatic data processing resources and telecommunications facilities, services, and equipment, shall be reviewed and approved in accordance with applicable DOE Orders and regulations regarding information resources.

(p) Priorities, Allocations and Allotments. Priorities, allocations and allotments shall be extended to appropriate subcontracts in accordance with the clause or clauses of this Contract dealing with priorities and allocations.

(q) Purchase of Special Items. Purchase of the following items shall be in accordance with the following provisions of 48 CFR 908.71 and the Federal Property Management Regulations, 41 CFR Chapter 101:

(1) Motor vehicles-48 CFR 908.7101

(2) Aircraft-48 CFR 908.7102

(3) Security Cabinets-48 CFR 908.7106

(4) Alcohol-48 CFR 908.7107

(5) Helium-48 CFR 908.7108

(6) Fuels and packaged petroleum products-48 CFR 908.7109

(7) Coal-48 CFR 908.7110

(8) Arms and Ammunition-48 CFR 908.7111

(9) Heavy Water-48 CFR 908.7121(a)

(10) Precious Metals-48 CFR 908.7121(b)

(11) Lithium-48 CFR 908.7121(c)

(12) Products and services of the blind and severely handicapped-41 CFR 101-26.701

(13) Products made in Federal penal and correctional institutions-41 CFR 101-26.702

(r) Purchase vs. Lease Determinations. Contractors shall determine whether required equipment and property should be purchased or leased, and establish appropriate thresholds for application of lease vs. purchase determinations. Such determinations shall be made:

(1) at time of original acquisition;

(2) when lease renewals are being considered; and

(3) at other times as circumstances warrant.

(s) Quality Assurance. Contractors shall provide no less protection for the Government in its subcontracts than is provided in the prime Contract.

(t) Setoff of Assigned Subcontractor Proceeds. Where a Subcontractor has been permitted to assign payments to a financial institution, the assignment shall treat any right of setoff in accordance with 48 CFR 932.803.

(u) Strategic and Critical Materials. The Contractor may use strategic and critical materials in the National Defense Stockpile.

(v) Termination. When subcontracts are terminated as a result of the termination of all or a portion of this Contract, the Contractor shall settle with Subcontractors in conformity with the policies and principles relating to settlement of prime Contracts in 48 CFR Subparts 49.1, 49.2 and 49.3. When subcontracts are terminated for reasons other than termination of this Contract, the Contractor shall settle such subcontracts in general conformity with the policies and principles in 48 CFR Subparts 49.1, 49.2, 49.3 and 49.4. Each such termination shall be documented and consistent with the terms of this Contract. Terminations which require approval by the Government shall be supported by accounting data and other information as may be directed by the Contracting Officer.

(w) Unclassified Controlled Nuclear Information. Subcontracts involving unclassified uncontrolled nuclear information shall be treated in accordance with 10 CFR part 1017.

(x) Subcontract Flowdown Requirements. In addition to terms and conditions that are included in the prime Contract which direct application of such terms and conditions in appropriate subcontracts, the Contractor shall include the following clauses in subcontracts, as applicable:

(1) Davis-Bacon clauses prescribed in 48 CFR 22.407.

(2) Foreign Travel clause prescribed in 48 CFR 952.247-70.

(3) Counterintelligence clause prescribed in 48 CFR 970.0404-4(a).

(4) Service Contract Act clauses prescribed in 48 CFR 22.1006.

(5) State and local taxes clause prescribed in 48 CFR 970.2904-1.

(6) Cost or pricing data clauses prescribed in 48 CFR 970.1504-3-1(b).

(y) Legal Services. Contractor purchases of litigation and other legal services are subject to the requirements in 10 CFR part 719 and the requirements of this clause.

(End of Clause)

I–116 970.5245-1 Property (Dec 2000) Alternate I (Dec 2000) (DEVIATION)

(a) Furnishing of Government property. The Government reserves the right to furnish any property or services required for the performance of the work under this Contract.

(b) Title to property. Except as otherwise provided by the Contracting Officer, title to all materials, equipment, supplies, and tangible personal property of every kind and description purchased by the Contractor, for the cost of which the Contractor is entitled to be reimbursed as a direct item of cost under this Contract, shall pass directly from the vendor to the Government. The Government reserves the right to inspect, and to accept or reject, any item of such property. The Contractor shall make such disposition of rejected items as the Contracting Officer shall direct. Title to other property, the cost of which is reimbursable to the Contractor under this Contract, shall pass to and vest in the Government upon (1) issuance for use of such property in the performance of this Contract, or (2) commencement of processing or use of such property in the performance of this Contract, or (3) reimbursement of the cost thereof by the Government, whichever first occurs. Property furnished by the Government and property purchased or furnished by the Contractor, title to which vests in the Government, under this paragraph are hereinafter referred to as Government property. Title to Government property shall not be affected by the incorporation of the property into or the attachment of it to any property not owned by the Government, nor shall such Government property or any part thereof, be or become a fixture or lose its identity as personality by reason of affixation to any realty.

(c) Identification. To the extent directed by the Contracting Officer, the Contractor shall identify Government property coming into the Contractor's possession or custody, by marking and segregating in such a way, satisfactory to the Contracting Officer, as shall indicate its ownership by the Government.

(d) Disposition. The Contractor shall make such disposition of Government property which has come into the possession or custody of the Contractor under this Contract as the Contracting Officer may direct during the progress of the work or upon completion or termination of this Contract. The Contractor may, upon such terms and conditions as the Contracting Officer may approve, sell, or exchange such property, or acquire such property at a price agreed upon by the Contracting Officer and the Contractor as the fair value thereof. The amount received by the Contractor as the result of any disposition, or the agreed fair value of any such property acquired by the Contractor, shall be applied in reduction of costs allowable under this Contract or shall be otherwise credited to account to the Government, as the Contracting Officer may direct. Upon completion of the work or the termination of this Contract, the Contractor shall render an accounting, as prescribed by the Contracting Officer, of all Government property which had come into the possession or custody of the Contractor under this Contract.

(e) Protection of Government property-management of high-risk property and classified materials.

(1) The Contractor shall take all reasonable precautions, and such other actions as may be directed by the Contracting Officer, or in the absence of such direction, in accordance with sound business practice, to safeguard and protect Government property in the Contractor's possession or custody.

(2) In addition, the Contractor shall ensure that adequate safeguards are in place, and adhered to, for the handling, control and disposition of high-risk property and classified materials throughout the life cycle of the property and materials consistent with the policies, practices and procedures for property management contained in the Federal Property Management regulations (41 CFR chapter 101), the Department of Energy Property Management regulations (41 CFR chapter 109), and other applicable regulations.

(3) High-risk property is property, the loss, destruction, damage to, or the unintended or premature transfer of which could pose risks to the public, the environment, or the national security interests of the United States. High-risk property includes proliferation sensitive, nuclear related dual use, export controlled, chemically or radioactively contaminated, hazardous, and specially designed and prepared property, including property on the militarily critical technologies list.

(f) Risk of loss of Government property.

(1)

(i) The Contractor shall not be liable for the loss or destruction of, or damage to, Government property unless such loss, destruction, or damage was caused by any of the following:

(A) Willful misconduct or lack of good faith on the part of the Contractor's managerial personnel;

(B) Failure of the Contractor's managerial personnel to take all reasonable steps to comply with any appropriate written direction of the Contracting Officer to safeguard such property under paragraph (e) of this clause; or

(C) Failure of Contractor managerial personnel to establish, administer, or properly maintain an

approved property management system in accordance with paragraph (i)(1) of this clause.

(ii) If, after an initial review of the facts, the Contracting Officer informs the Contractor that there is reason to believe that the loss, destruction of, or damage to the Government property results from conduct falling within one of the categories set forth above, the burden of proof shall be upon the Contractor to show that the Contractor should not be required to compensate the Government for the loss, destruction, or damage.

(2) In the event that the Contractor is determined liable for the loss, destruction or damage to Government property in accordance with (f)(1) of this clause, the Contractor's compensation to the Government shall be determined as follows:

(i) For damaged property, the compensation shall be the cost of repairing such damaged property, plus any costs incurred for temporary replacement of the damaged property. However, the value of repair costs shall not exceed the fair market value of the damaged property. If a fair market value of the property does not exist, the Contracting Officer shall determine the value of such property, consistent with all relevant facts and circumstances.

(ii) For destroyed or lost property, the compensation shall be the fair market value of such property at the time of such loss or destruction, plus any costs incurred for temporary replacement and costs associated with the disposition of destroyed property. If a fair market value of the property does not exist, the Contracting Officer shall determine the value of such property, consistent with all relevant facts and circumstances.

(3) The portion of the cost of insurance obtained by the Contractor that is allocable to coverage of risks of loss referred to in paragraph (f)(1) of this clause is not allowable.

(g) Steps to be taken in event of loss. In the event of any damage, destruction, or loss to Government property in the possession or custody of the Contractor with a value above the threshold set out in the Contractor's approved property management system, the Contractor:

(1) Shall immediately inform the Contracting Officer of the occasion and extent thereof,

(2) Shall take all reasonable steps to protect the property remaining, and

(3) Shall repair or replace the damaged, destroyed, or lost property in accordance with the written direction of the Contracting Officer. The Contractor shall take no action prejudicial to the right of the Government to recover therefore, and shall furnish to the Government, on request, all reasonable assistance in obtaining recovery.

(h) Government property for Government use only. Government property shall be used only for the performance of this Contract, except as set forth in the Special Contract Requirement entitled "Use of Facilities for Contractor's Own Account."

(i) Property Management.

(1) Property Management System.

(i) The Contractor shall establish, administer, and properly maintain an approved property management system of accounting for and control, utilization, maintenance, repair, protection, preservation, and disposition of Government property in its possession under the Contract. The Contractor's property management system shall be submitted to the Contracting Officer for approval and shall be maintained and administered in accordance with sound business practice, applicable Federal Property Management regulations and Department of Energy Property Management regulations, and such directives or instructions which the Contracting Officer may from time to time prescribe.

(ii) In order for a property management system to be approved, it must provide for:

(A) Comprehensive coverage of property from the requirement identification, through its life cycle, to final disposition;

(B) Employee personal responsibility and accountability for Government-owned property;

(C) Full integration with the Contractor's other administrative and financial systems; and

(D) A method for continuously improving property management practices through the identification of best practices established by "best in class" performers.

(iii) Approval of the Contractor's property management system shall be contingent upon the completion of the baseline inventory as provided in subparagraph (i)(2) of this clause.

(2) Property Inventory.

(i) Unless otherwise directed by the Contracting Officer, the Contractor shall within six months after execution of the Contract provide a baseline inventory covering all items of Government property.

(ii) If the Contractor is succeeding another Contractor in the performance of this Contract, the Contractor shall conduct a joint reconciliation of the property inventory with the predecessor Contractor. The Contractor agrees to participate in a joint reconciliation of the property inventory at the completion of this Contract. This information will be used to provide a baseline for the succeeding contract as well as information for closeout of the predecessor contract.

(j) The term "Contractor's managerial personnel" as used in this clause is as defined in Section I, Contract Clause “Definitions”.

(k) The Contractor shall include this clause in all cost reimbursable subcontracts.

(End of Clause)

Part III – List of Documents, Exhibits, And Other Attachments

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List of Attachments

**Part III – List of Documents,
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Appendix A

Advance Understandings on Human Resources

Introduction

This Advance Understanding (AU) is intended to document the principles and measures for assessment of the Contractor's Human Resource Management (CHRM) programs and Other Items of Allowable Cost not specifically addressed in H.30 of this Contract. PNNL CHRM policies, practices, and plans are located in the PNNL Standards-Based Management System. Any changes to SBMS CHRM policies, practices, and/or plans covered in an advance understanding that increase costs shall require written approval by the DOE Contracting Officer. PNNL CHRM programs will comply with the Federal Acquisition Regulation (FAR) cost principles and FAR contract clauses, as supplemented by the Department of Energy Acquisition Regulation (DEAR), for all HR programs, including but not limited to Compensation, Health and Welfare Benefits, Pension Plans, Savings Plans, Training and Development, Professional Society Memberships, Staff Association, Employee and Labor Relations, Diversity/Equal Employment Opportunity/Affirmative Action, Recruitment and Relocation. The Contractor shall use effective management review procedures and internal controls to assure compliance with the FAR and DEAR. The Contractor shall ensure appropriate systems are in place for change control to any such SBMS CHRM policies, practices, and/or plans

Either party may request that this AU be revised and the parties hereto agree to give consideration in good faith to any such request. Revisions to this AU shall be accomplished by executing an AU modification as approved by the DOE Contracting Officer. Any prior Contracting Officer reimbursement determination referenced in this section must be in writing.

The Contractor, or designated representative, shall promptly furnish all reports and information required or otherwise indicated in this Advance Understanding to the Contracting Officer. The Contractor recognizes that the Contracting Officer or designated representative may make other data requests from time to time and the Contractor agrees to cooperate in meeting requests.

It is understood that no provision of this Appendix can affect any right guaranteed to a bargaining unit employee by the terms of a Collective Bargaining Agreement.

I. CHRM Program Assessment Performance Measures

Performance measures include, but are not limited to the following:

A. Employee Welfare Benefit Measures

1. Relative Benefit Value (ben-val) process standards

   a. The Contractor shall determine a list of no less than 15 participants to be a part of the comparator group. The comparator group is defined as companies of comparable size, industry, market, and region. The Contracting Officer shall approve the list prior to the performance of the ben-val measure.

b. The ben-val shall measure all major non-statutory benefit plans offered by the Contractor, including qualified defined benefit and defined contribution retirement and capital accumulation plans, and death, disability, health, and paid time-off welfare benefit programs.

c. Relative benefit values must be actuarially calculated by a national consulting firm with expertise in relative benefit value calculations.

2. Per Capita employee benefit cost comparison process standards

a. The Contractor at its option may provide a proposal for establishing an alternative cost study in lieu of the Chamber of Commerce (CoC) Annual Employee Benefits Cost Survey for review and approval to the Contracting Officer.

b. This proposal must at a minimum identify the organization to perform the study, the proposed study methodology, and must be a broad-based national survey that includes comparators of like size, industry, market.

c. The Contracting Officer shall respond to this request within 90 calendar days with an approval, rejection, or request for additional information, or to inform the Contractor that DOE requires an extension for the review (not to exceed the original review period).

d. If the Contractor does not submit a proposal in accordance with this clause, or if the proposal is rejected by the Contracting Officer, the Contractor will use the CoC Annual Employee Benefits Cost Survey for the cost study.

3. Retirement income replacement ratios- An actuarial measure that may be used by the DOE or Contractor that compares (with other mutually agreed to and Contracting Officer approved databases and/or broad based surveys by professional actuarial consulting firms) the value of Contractor retirement benefit programs measured as a percentage of final pay replaced by Contractor provided defined benefit, defined contribution and retiree medical benefits combined with Social Security Benefits.

II. Other items

A. Incentive Compensation

1. The Contractor may submit a proposal for establishing an incentive compensation plan to the Contracting Officer for review and approval for a determination of cost reimbursement under this Contract. The proposal must contain: a description of the performance management

system and "line of sight" to the DOE mission and Contract statement of work at all levels and be consistent with established performance measurement approaches; the incentive compensation plan design, funding methodology, and linkage to Contract performance measures; and the design must contain a policy for a specific Passover rate, i.e., percent of participants who will not receive an incentive and pay at risk.

2. The Contracting Officer shall respond to this request within 90 calendar days with an approval, rejection, or request for additional information, or to inform the Contractor that DOE requires an extension for the review (not to exceed the original review period).

B. Pension.

The Contractor may submit a proposal for establishing pension/service reciprocity within Battelle managed Office of Science Laboratories to the Contracting Officer for review and approval of allowability under this Contract. The Contracting Officer shall respond to this request within 180 calendar days with an approval, rejection, or request for additional information, or to inform the Contractor that DOE requires an extension for the review (not to exceed the original review period).

C. Dependent Care.

Any agreement between contractors and dependent care (program) provider organizations must ensure that contractors and the DOE are held harmless from liability.

1. Property damage liability and bodily injury liability insurance policies must be retained by the dependent care (program) provider organization in an amount appropriate for services provided. The contractors must also be insured under these policies.

2. Agreements between the contractors and dependent care (program) provider organizations must ensure that the provider organizations operate, maintain, and upgrade any proposed workplace dependent care facility in compliance with federal, state, and local policies, regulations, and requirements for environment, safety and health.

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Appendix B

Special Bank Account Agreement

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Appendix C

Subcontracting Plan for Socioeconomic Programs

Pacific Northwest National Laboratory
Subcontracting Plan
Revision 1, Effective October 1, 2003

Socioeconomic Programs

Battelle's policy pledges a strong commitment to involving small and socioeconomically disadvantaged business concerns in the operation of the Pacific Northwest National Laboratory. Battelle supports the socioeconomic objectives of the U.S. Government and recognizes that diversity in subcontracting provides a vital link to the local community, strengthens the economy, and represents best business practices.

In keeping with the above policy, Battelle and the U.S. Department of Energy (DOE) have established the following Subcontracting Plan (this Plan). This Plan shall remain in effect from October 1, 2002, for the entire Contract period associated with this Contract extension. However, annual goals shall be negotiated and established by written agreement between the Contracting Officer and Battelle and shall be incorporated into this Plan by letter and will not require a Contract modification.

Revision 1 to this Plan is issued to reflect modifications to the exceptions listed in Section I.C.

I. Goals

A. Based on an estimated fiscal year 2004 budget of $521,500,000, and an adjusted procurement volume of $105,000,000, Battelle's goals for fiscal year 2004 are to –

1. Award 55.0 percent to Small Business concerns, estimated at $57,750,000 annually
2. Award 5.5 percent to Small Disadvantaged Business concerns, estimated at $5,775,000 annually
3. Award 5.0 percent to Women-Owned Small Business concerns, estimated at $5,250,000 annually
4. Award 5.0 percent to HUBZone Small Business concerns, estimated at $5,250,000 annually
5. Award 2.5 percent to Veteran-Owned Small Business concerns, estimated at $2,625,000 annually
6. Award 0.1 percent to Service-Disabled Veteran-Owned Small Business concerns, estimated at $105,000 annually

B. Goals must be realistic to present the proper challenge to staff that are ultimately responsible for goal achievement. The percentage goals in A. above, based on past performance and future projections, will present such a challenge.

C. These goals are accumulated based on subcontracts and purchase orders placed and do not include other indirect costs. They will include all dollars awarded under Contract DE-AC06-76RL01830 with the exception of those dollars awarded to other DOE Integrated Contractors, Battelle Inter-laboratory Authorizations, other Federal Agencies, State and Local Governments, awards to sources directed by DOE, educational institutions, non-profit and not-for-profit organizations, the International Nuclear Safety Program, and firms outside the U.S.A. In addition, work orders issued against Purchase Order 8336 to Science Applications International Corporation during FY-2004 will be excluded from the goals calculations but will be reported separately.

D. The principal products and services to be obtained in support of this Plan are those generally associated with an extremely diverse research and development environment. The business concerns in this Plan will generally supply a major portion of the goods and services listed in Table A.

TABLE A

Subcontracted Effort	SB	SDB	WOSB	HZ	SDV
Electrical material and supplies	x	x	x	x	x
Pumps, gauges and valves	x	x	x	x	x
Computer equipment and supplies	x	x	x	x	x
Aluminum and other metals	x	x	x	x	x
Laboratory supplies	x	x	x	x	
Reproduction supplies	x	x	x	x	
Office equipment and supplies	x	x	x	x	
Translation Services	x		x		
Chemicals	x	x	x	x	
Tools of all types	x	x	x	x	x
Electrical equipment and parts	x	x	x	x	x
Construction services and materials	x	x	x	x	x
Custodial equipment and supplies	x	x	x	x	x
Welding equipment and supplies	x	x	x	x	x
Fuels and lubricants	x	x	x	x	x
Plastic products	x	x	x	x	x
Industrial hardware	x	x	x	x	x
Technical support	x	x	x	x	x

II. Battelle Subcontracting Plan Administrator

Battelle's Small Business Program Manager, Andrea Melius, is responsible to the Manager of Acquisition Services and will administer this Subcontracting Plan. Any change in the name of the Small Business Program Manager will be communicated without delay to the Contracting Officer. Responsibilities of the Small Business Program Manager include:

- Serve as Battelle's interface with small and socioeconomically-disadvantaged businesses.
- Maintain business directories from regional minority purchasing councils and other sources to expand and keep current listings of small and socioeconomically-disadvantaged businesses.
- Participate as Battelle representative in small business trade fairs, specifically directed toward offering opportunities for participants to do business with Battelle.
- Attend DOE-sponsored Small Business Program Manager Meetings and participate in the annual DOE Small Business Conference.
- Participate in trade associations, business development organizations, and conferences to locate and identify small and socioeconomically-disadvantaged business sources.
- Counsel and discuss subcontracting opportunities with potential small and socioeconomically-disadvantaged business firms and arrange appropriate assistance to these firms as required and practicable.
- Provide statistics to Battelle management on progress toward established goals and recognition of significant Contract Specialist performance in this area.
- Hold periodic training and other meetings with the appropriate acquisition staff on the Socioeconomic Programs.
- Conduct periodic meetings and otherwise communicate with Battelle organizational components covering Battelle's Socioeconomic Programs.
- Support Small Business Administration (SBA) activities as requested.

III. Administration of Battelle's Subcontracting Plan

Battelle staff is committed to offering a fair and equitable opportunity for small and socioeconomically disadvantaged business concerns, to compete for the goods and services required to support our ongoing research.

Battelle responds either verbally or in writing to each request received from firms that desire an opportunity to compete for purchase order/subcontract business.

A computerized listing of small and socioeconomically-disadvantaged business concerns is maintained by the Small Business Program Manager.

The Small Business Program Manager may participate in the screening of purchase requisitions and may add suggested small and socioeconomically-disadvantaged businesses as potential sources for Contracts Specialist consideration.

Staff members are encouraged to use the Pro-*Net* and database established and maintained by the SBA for locating small and socioeconomically-disadvantaged businesses.

Staff will post all written solicitations on PNNL's website to maximize exposure to small and socioeconomically-disadvantaged businesses.

When appropriate, procurements may be synopsized in the Federal Business Opportunities (FedBizOpps) in an effort to locate additional qualified small and socioeconomically-disadvantaged business concerns for participation.

IV. Flow-Down Requirements to Battelle's Subcontractors

Each purchase order/subcontract action $100,000 and above placed in furtherance of Prime Contract DE-AC06-76RLO1830 will include the clause: "Utilization of Small Business Concerns."

Lower-Tier Subcontracting Plans from large business concerns are each reviewed and approved by Battelle's Small Business Program Manager. Contact is established with the Lower-Tier Subcontractors Plan Administrator to offer assistance in identifying potential small and socioeconomically-disadvantaged sources and establish semi-annual reporting requirements.

Battelle's Procurement Policies Manual contains instructions to staff to include in all solicitations for negotiated procurements amounting to $500,000, or more, and which will offer subcontracting opportunities, the requirement to develop and adopt a Small Business Subcontracting Plan as required by Battelle's operating contract.

V. Periodic Reporting and Cooperating with DOE and SBA

Battelle will submit such periodic reports, as may be required by DOE or the SBA, in order to determine the extent of compliance with this Subcontracting Plan.

Battelle will cooperate in any studies or surveys conducted by DOE or SBA, by furnishing requested available statistical data.

Battelle will submit Standard Form 294, Subcontracting Report for Individual Contracts, and/or Standard Form 295, Summary Subcontract Report, in accordance with the instructions on the forms or as provided by DOE and will ensure that its subcontractors agree to submit Standard Forms 294 and 295.

VI. Maintaining Records

Computerized reports are used to track progress toward achievement of goals. These reports are used to prepare monthly and quarterly reports (more frequent if requested) summarizing activity and progress related to compliance with the Subcontracting Plan.

In support of this Plan, Battelle will maintain the following records:

- Source lists (*e.g.*, PRO-Net and SUB-Net), guides and other data that identify small and socioeconomically-disadvantaged business concerns
- Organizations contacted to locate small and socioeconomically-disadvantaged business concerns.
- Records on each subcontract solicitation resulting in an award of more than $100,000, indicating whether small and socioeconomically-disadvantaged businesses were solicited and, if not, why not, and, if applicable, the reason award was not made to a small business concern.

- Records of any outreach efforts and contacts with trade associations, business development organizations, and conferences and trade fairs to locate small and socioeconomically-disadvantaged sources.
- Records of internal guidance and encouragement provided to buyers through (1) workshops, seminars, training, etc., and (2) monitoring performance to evaluate compliance with the program's requirements.
- On a contract-by-contract basis, records to support award data submitted by the offeror to Battelle, including the name, address, and business size of each subcontractor.

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Section J

Appendix D

List of Applicable DOE Directives & External Requirements

SECTION J
APPENDIX D
LIST OF APPLICABLE DOE DIRECTIVES & EXTERNAL REQUIREMENTS

DOE DIRECTIVES	
DIRECTIVE NO.	**DIRECTIVE TITLE**
CRD O 110.3, Supplemented	CONFERENCE MANAGEMENT
CRD O 130.1	BUDGET FORMULATION
CRD M 140.1-1B	INTERFACE WITH THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD
DOE N 142.1	UNCLASSIFIED FOREIGN VISITS AND ASSIGNMENTS
CRD O 200.1	INFORMATION MANAGEMENT PROGRAM
DOE M 200.1-1	TELECOMMUNICATIONS SECURITY MANUAL
CRD O 205.1	DEPARTMENT OF ENERGY CYBER SECURITY MANAGEMENT PROGRAM
CRD N 205.2	FOREIGN NATIONAL ACCESS TO DOE CYBER SYSTEMS
CRD N 205.3	PASSWORD GENERATION, PROTECTION, AND USE
CRD N 205.4	HANDLING CYBER SECURITY ALERTS AND ADVISORIES AND REPORTING CYBER SECURITY INCIDENTS
CRD O 221.1	REPORTING FRAUD, WASTE, AND ABUSE TO THE OFFICE OF INSPECTOR GENERAL
CRD O 221.2	COOPERATION WITH THE OFFICE OF INSPECTOR GENERAL
CRD M 231.1-2	OCCURRENCE REPORTING AND PROCESSING OF OPERATIONS INFORMATION
CRD O 241.1A	SCIENTIFIC AND TECHNICAL INFORMATION MANAGEMENT
CRD O 251.1A	DIRECTIVES SYSTEM ORDER
CRD O 252.1	TECHNICAL STANDARDS PROGRAM
CRD O 350.2	USE OF FACILITY CONTRACTOR EMPLOYEES FOR SERVICES TO DOE IN THE WASHINGTON, D.C., AREA
CRD O 412.1	WORK AUTHORIZATION SYSTEM
CRD O 413.1A	MANAGEMENT CONTROL PROGRAM
CRD O 413.2A	LABORATORY DIRECTED RESEARCH AND DEVELOPMENT
CRD O 414.1A, Chg 1	QUALITY ASSURANCE
CRD O 420.1A	FACILITY SAFETY (Section 4.2 only)
CRD O 420.2A	SAFETY OF ACCELERATOR FACILITIES
CRD O 430.1A Supplemented, Rev 1	LIFE CYCLE ASSET MANAGMENT
CRD O 435.1, Chg 1*	RADIOACTIVE WASTE MANAGEMENT
CRD O 440.1A, Chg 1	WORKER PROTECTION MANAGEMENT FOR DOE FEDERAL AND CONTRACTOR EMPLOYEES
CRD O 443.1	PROTECTION OF HUMAN SUBJECTS
CRD N 450.7	THE SAFE HANDLING, TRANSFER, AND RECEIPT OF BIOLOGICAL ETIOLOGIC AGENTS AT DEPARTMENT OF ENERGY FACILITIES
CRD M 452.4-1	PROTECTION OF USE CONTROL VULNERABILITIES AND DESIGNS

DOE DIRECTIVES	
DIRECTIVE NO.	**DIRECTIVE TITLE**
CRD O 470.1, Chg 1	**SAFEGUARDS AND SECURITY PROGRAM**
CRD M 470.1-1	**SAFEGUARDS AND SECURITY AWARENESS PROGRAM**
CRD O 470.2B, Supplemented, Rev 2	**SECURITY AND EMERGENCY MANAGEMENT INDEPENDENT OVERSIGHT AND PERFORMANCE ASSURANCE PROGRAM**
DOE M 471.1-1, Chg 1	**IDENTIFICATION AND PROTECTION OF UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION MANUAL**
CRD O 471.1A	**IDENTIFICATION AND PROTECTION OF UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION**
CRD M 471.2-1B, Supplemented, Rev 1	**CLASSIFIED MATTER PROTECTION AND CONTROL MANUAL**
CRD M 471.2-1C, Supplemented, Rev 0	**CLASSIFIED MATTER PROTECTION AND CONTROL MANUAL**
DOE M 471.2-3A	**SPECIAL ACCESS PROGRAM POLICIES, RESPONSIBILITIES, AND PROCEDURES**
CRD O 471.2A	**INFORMATION SECURITY PROGRAM**
CRD M 471.2-2	**CLASSIFIED INFORMATION SYSTEMS SECURITY MANUAL**
CRD M 471.3-1**	**MANUAL FOR IDENTIFYING AND PROTECTING OFFICIAL USE ONLY INFORMATION**
CRD N 471.3, Supplemented, Rev 0	**REPORTING INCIDENTS OF SECURITY CONCERN**
DOE M 472.1-1B	**PERSONNEL SECURITY PROGRAM MANUAL**
CRD O 472.1C	**PERSONNEL SECURITY ACTIVITIES**
CRD O 473.1	**PHYSICAL SECURITY PROGRAM**
CRD M 473.1-1, Supplemented, Rev 0	**PHYSICAL PROTECTION PROGRAM MANUAL**
CRD N 473.8	**SECURITY CONDITIONS**
CRD O 474.1A	**CONTROL AND ACCOUNTABILITY OF NUCLEAR MATERIALS**
CRD M 474.1-1B	**MANUAL FOR CONTROL AND ACCOUNTABILITY OF NUCLEAR MATERIALS**
CRD M 474.1-2, Chg 2	**NUCLEAR MATERIALS MANAGEMENT AND SAFEGUARDS SYSTEM REPORTING AND DATA SUBMISSION**
CRD M 475.1-1A	**IDENTIFYING CLASSIFIED INFORMATION**
CRD N 481.1A	**REIMBURSABLE WORK FOR DEPARTMENT OF HOMELAND SECURITY**
CRD O 481.1B Supplemented, Rev 0	**WORK FOR OTHERS (NON-DEPARTMENT OF ENERGY FUNDED WORK)**
CRD O 482.1	**DOE FACILITIES TECHNOLOGY PARTNERING PROGRAMS**
CRD O 483.1	**DOE COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS**
CRD O 534.1B	**ACCOUNTING**
CRD O 551.1A, Chg 1, Supplemented, Rev 0	**OFFICIAL FOREIGN TRAVEL**
HQ CRD O 580.1A	**GOVERNMENT PERSONAL PROPERTY ASSET MANAGEMENT**

DOE DIRECTIVES	
DIRECTIVE NO.	**DIRECTIVE TITLE**
DOE O 1450.4	**CONSENSUAL LISTENING-IN TO OR RECORDING TELEPHONE/ RADIO CONVERSATIONS**
DOE O 2110.1A, Chg 2	**PRICING OF DEPARTMENTAL MATERIALS AND SERVICES**
DOE O 5400.5, Chg 2	**RADIATION PROTECTION OF THE PUBLIC AND THE ENVIRONMENT (Chapter 2, Sections 2 & 5, and Chapter 4)**
DOE O 5610.2, Chg 1	**CONTROL OF WEAPON DATA**
DOE O 5639.8A	**SECURITY OF FOREIGN INTELLIGENCE INFORMATION AND SENSITIVE COMPARTMENTED INFORMATION FACILITIES**
DOE O 5670.3	**COUNTERINTELLIGENCE PROGRAM**
DOE/RL-94-02	**HANFORD EMERGENCY RESPONSE PLAN**
PNL-MA-530	**PNNL FLIGHT OPERATIONS MANUAL**

*** The Contractor shall submit a plan to implement CRD O 435.1, Chg 1 "Radioactive Waste Management" no-later-than 30 calendar days after the effective date of the modification to extend the contract. The Contractor shall continue to comply with DOE O 5820.2A "Radioactive Waste Management" until implementation of CRD 435.1, Chg 1.**

**** The Contractor shall submit a plan to implement CRD M 471.3-1 "Manual for Identifying and Protecting Official Use Only Information" no-later-than 30 calendar days after the effective date of the modification to extend the contract.**

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Appendix E

Performance Evaluation and Measurement Plan

Contract Number: DE-AC06-76RL01830
Modification M375

APPENDIX E

STANDARDS OF PERFORMANCE-BASED FEE

FY 2003

BATTELLE PERFORMANCE EVALUATION AND FEE AGREEMENT

for

Management and Operations of the

Pacific Northwest National Laboratory

Leonard K. Peters
Director, Pacific Northwest National Laboratory

8/26/03
Date

LEGAL APPROVAL KH

for Keith A. Klein
Manager, DOE-RL

8/26/03
Date

APPENDIX E

STANDARDS OF PERFORMANCE-BASED FEE

FY 2003

BATTELLE PERFORMANCE EVALUATION AND FEE AGREEMENT

for

Management and Operations of the

Pacific Northwest National Laboratory

_____ _____
Leonard K. Peters Date
Director, Pacific Northwest National Laboratory

_____ _____
Keith A. Klein Date
Manager, DOE-RL

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INTRODUCTION

This document describes the basis for the evaluation of Battelle's (hereafter referred to as "the Contractor") performance regarding the management and operations of the Pacific Northwest National Laboratory (hereafter referred to as "the Laboratory") for the evaluation period from October 1, 2002, through September 30, 2003. The performance evaluation provides a standard by which to determine whether the Contractor is managerially and operationally in control of the Laboratory and is meeting the requirements of the Department as stipulated within this contract.

This document also describes the distribution of the total available performance-based fee and the methodology for determining the amount of fee earned by the Contractor as stipulated within the clauses entitled, "Determining Total Available Performance Fee and Fee Earned," "Conditional Payment of Fee, Profit, or Incentives," and "Total Available Fee: Base Fee and Performance Fee Amount." In partnership with the Contractor and other key customers, the Department of Energy (DOE) Headquarters (HQ) and the Richland Operations Office (RL) have defined the performance expectations that serve as the Contractor's performance-based evaluation and fee determination.

In a July 13, 1998 memorandum, the Director of the DOE Office of Science (SC) identified high-level expectations in six critical areas that SC would use to guide its regular assessment of laboratory performance. These critical areas are Science, Leadership, ES&H, Infrastructure, Business Operations and Stakeholder Relations. The memorandum also noted that SC expects SC/HQ program managers, field offices, and laboratories to work in partnership to develop laboratory-specific outcomes, objectives, and performance indicators, which support these high-level expectations and to use self-assessment as a tool to confirm desired outcomes and achieve continual improvement. This performance agreement meets these expectations.

The critical outcomes discussed herein were developed using the SC guidance and site-specific needs for improvement at the Laboratory. The Science and Technological Excellence Critical Outcome addresses performance of outstanding science and leading edge technologies critical to DOE's missions and the nation. This performance plays out in four key areas: the quality of science and technology; the relevance of the programs to DOE missions and national needs; the design, construction and operation of world-class research facilities (as applicable) that are the distinctive signature of the Laboratory; and the effectiveness/ efficiency of research program management. In addition, the Scientific & Technological Excellence Critical Outcome addresses the creation of leading edge scientific capabilities to support evolving DOE mission needs and the operation of EMSL as an effective DOE user facility.

The operational areas of environment, safety, and health (ES&H), safeguards and security, business management, and optimization of the Laboratory's facilities and infrastructure, have been captured within a critical outcome entitled "Management and Operations Excellence." The activities necessary to attract, develop and retain staff critical to operating a world-class laboratory, the relevance of the Laboratory to the needs of the region, and the Laboratory's science and engineering education programs are captured within the Leadership Excellence Critical Outcome.

For FY2003 the overall performance against this performance plan will be utilized to determine the amount of the total available fee earned by the Contractor as stipulated within the contract clause "Total Available Fee: Base Fee and Performance Fee Amount." Battelle may receive a performance-based fee of up to $7.3M based on the overall Contractor performance rating.

Section I provides information on how the overall performance rating for the Contractor, as well as how the performance-based fee earned (if any) will be determined.

Section II provides the detailed information concerning critical outcomes, objectives, performance indicators, and expectations of performance, along with the weightings assigned to each and a table for calculating the final score for each objective and outcome.

Section III describes the commitments for documenting and reporting the Laboratory-Level self-evaluation.

I. DETERMINING THE CONTRACTOR'S PERFORMANCE RATING AND PERFORMANCE-BASED FEE

The overall FY2003 Battelle performance rating will be determined based on the ratings of the Scientific and Technological Excellence, Management and Operations Excellence, and Leadership Excellence Critical Outcomes in accordance with Table A below. The total points derived will be compared to the scale in Table B, below; to determine the overall Contractor adjectival rating for FY2003 and to Table C to determine the amount of performance-based fee earned. Each critical outcome is composed of two or more objectives and each objective has one or more indicators, which are designed to confirm that the Contractor is meeting the objective. The following describes the methodology for determining the Contractor rating:

Performance Evaluation Metrics:
Each of the performance indicators has an associated metric accompanied by a scale that translates the level of performance to an adjectival rating. Unless otherwise specified for a given indicator, the scoring methodology for the assessment process is based upon the adjectival rating definitions and value points identified in Figure I-1.

Adjective	Value Point	Definition
Outstanding	4	Significantly exceeds the standards of performance, achieves noteworthy results, accomplishes very difficult tasks in a timely manner.
Excellent	3	Exceeds expectations and standards of performance, accomplished difficult tasks in a timely manner, and minor deficiencies are more than offset by better performance in other areas.
Good	2	Meets expectations and standards of performance, actions are carried out in an efficient and timely manner; deficiencies do not affect overall performance.
Marginal	1	Below the standards of performance, deficiencies cause serious delays and rescheduling, schedules are adversely affected.
Unsatisfactory	0	Well below standards of performance, deficiencies cause serious delays and re-scheduling, corrective action requires high-level management attention.

Figure I-1. Adjectival Rating Definitions and Value Points

Calculating the Overall Contractor Adjectival Rating:
The adjectival rating earned for each performance indicator is assigned the earned value points per Figure I-1 above. The objective rating is then computed by multiplying the value points by the weight of each performance indicator within an objective. These values are then added together to develop an overall score for each objective. The score for each objective within an outcome is computed in the same manner and is used to develop a score for each outcome. A set of tables is provided at the end of each critical outcome section of this document to assist in the calculation of indicator scores to objective scores to the outcome score. Utilizing Table A, below, the scores for each of the outcomes are then multiplied by the weight assigned and these are summed to provide an overall score for the Contractor. The total Contractor score is compared to the adjectival rating scale found in Table B, below, to determine the overall Contractor adjectival rating for FY2003.

An adjectival rating may be identified at any level of the performance evaluation process (outcome, objective, or indicator). However, the raw score (rounded to the nearest hundredth) from each calculation shall be carried through to the next stage of the calculation process. The raw score will be rounded to the nearest tenth of a point for purposes of identifying the Laboratory's overall adjectival rating as indicated in Table B and for fee determination as indicated in Table C. A standard rounding convention of x.44 and less rounds down to the nearest tenth (here, x.4), while x.45 and greater rounds up to the nearest tenth (here, x.50).

Determining the Amount of Performance-Based Fee Earned:
The total performance-based fee earned is determined based on the overall Contractor weighted score for FY2003 as indicated within Table A and then compared to Table C.

Critical Outcome	Value Points	Adjectival Rating	Weight	Weighted Score	Total Score
Scientific and Technological Excellence			60%		
Management and Operations Excellence			25%		
Leadership Excellence			15%		
				Total Score	

Table A. FY2003 Contractor Evaluation Score Calculation

Total Score	4.0 - 3.5	3.4 - 2.5	2.4 - 1.5	1.4 – 0.5	<0.5
Final Rating	Outstanding	Excellent	Good	Marginal	Unsatisfactory

Table B. FY2003 Contractor Adjectival Rating Scale

Overall Weighted Score from Table A.	Performance Rating	Percent of Fee Earned of $7,300,000.00
4.0	Outstanding	
3.9		
3.8		100%
3.7		98%
3.6		96%
3.5		94%
3.4	Excellent	93%
3.3		92%
3.2		91%
3.1		90%
3.0		85%
2.9		83%
2.8		81%
2.7		79%
2.6		77%
2.5		75%
2.4	Good	50%
2.3		50%
2.2		50%
2.1		30%
2.0		30%
1.9		25%
1.8		0%
1.7 to 1.5		
1.4 to 0.5	Marginal	
0.4 to 0.0	Unsatisfactory	

Table C. Performance-Based Fee Earned Scale

Adjustment to the Adjectival Rating and Performance-Based Fee Determination:
Not including a performance indicator in this agreement or a self-assessment plan does not diminish the need to comply with minimum contractual requirements. Although the performance-based critical outcomes and their corresponding objectives/indicators shall be the primary means utilized in determining the Contractor's performance rating and amount of performance-based fee earned, the Head of Contracting Authority may adjust the rating and/or reduce or increase the otherwise earned fee based on the Contractor's performance against all contract requirements as set forth in clause entitled "Conditional Payment of Fee, Profit, or Incentives." In order for the Contractor to receive all otherwise earned fee, the Contractor must meet the minimum performance requirements as set forth in clause titled "Conditional Payment of Fee, Profit, or Incentives."

Adjustments to the adjectival rating or performance-based fee determination, or both, if necessary, will be based upon the review of the Contractor's self-evaluation report, performance against contract requirements, and results from any of the following activities:

1. Operational awareness (daily oversight) activities performed throughout the year;
2. For Cause reviews;
3. Other outside agency reviews (OIG, GAO, DCAA, etc.) conducted throughout the year, and
4. Annual 2-week review (if needed).

In FY2002, BMI's fee was reduced by $350K as the result of financial control issues related to work authorization and control point overruns. In FY2003, DOE fully intends to reduce available fee to a significantly greater extent if control point overruns occur (i.e., the sum of actual costs and commitments exceed available funding in the control point).

The final Contractor performance-based rating and fee earned determination will be contained within a year-end report, documenting the results from the DOE review. The report will identify areas where performance improvement is necessary and, if required, provide the basis for any performance-based rating and/or fee adjustments made from the otherwise earned rating/fee based on critical outcome achievements.

II. CRITICAL OUTCOMES, OBJECTIVES & PERFORMANCE INDICATORS

Background

In order for both the short and long-term ability of the Laboratory to meet DOE mission needs and to provide high-value products and services to the DOE and other customers, the DOE-HQ and the Associate Manager for Science and Technology (AMT), in partnership with the Contractor, evaluated DOE and other customer needs and current operating environments to develop the Laboratory's three critical outcomes. While they are validated annually the critical outcomes typically have a 3-5 year time horizon.

The outcome-oriented approach focuses the evaluation of the Contractor's performance against these critical outcomes. Progress against these outcomes is measured through the use of a set of performance indicators, both objective and subjective, that focus primarily on end-results or impact and not on processes or activities. On occasion however, it is necessary to include a process-oriented measure into the suite of performance indicators when the Laboratory is developing a system or process that does not currently exist but will be of significant importance to the DOE and the Laboratory when completed. In this case, it is anticipated that the process indicator will result in outcomes that will be tracked in the following year(s).

Change Control

While the outcomes, objectives, and indicators described herein represent the current set for the Contractor they may require adjustments as prevailing scientific, and/or economic factors change. When this happens, the objectives and the resulting performance indicators will be revised to move the Laboratory in a direction consistent with the expectations of its customers. To this end the content of this document will be managed via formal change control. Changes to the FY2003 Performance Evaluation and Fee Agreement will be documented in accordance with approved procedures utilizing the Change Control Tracking Sheet. The sheet is self-explanatory and requires the concurrence of both the AMT and the Contractor Critical Outcome Owners as well as a documented description of the proposed modification and a documented rationale for the modification to include what effects (if any) the change may have on the ability for the Contractor to earn performance-based fee. A change to the critical outcomes also requires the review/approval of the RL Manager and HQ Office of Science (SC). In addition, the RL Manager and SC will be notified of changes to any objectives.

Once the Critical Outcome Owners have concurred with the modification, DOE staff shall forward the form with the prescribed attachments to the Contract Administration Manager, at mail stop K8-50. Contractor staff shall forward the change control form, with attachments, to the PNNL Performance Measurement Process Administrator, at mail stop K1-33. They shall confirm that all required information has been provided and that both Critical Outcome Owners (DOE and Contractor) and, as required, HQ Office of Science have concurred in the change. The change will then be given a formal Change Control number and final AMT, RL and Contractor approvals will be obtained, as necessary, to include Contracting Officer approval. Once approved appropriate modifications to this appendix will be prepared and issued via a contract modification.

The above process is the preferred method for incorporating changes to this document, however, if the Parties cannot reach agreement on the changes to critical outcomes, objectives, performance indicators, and/or expected levels of performance, the Contracting Officer shall have the unilateral right to change the performance agreement in accordance with clause entitled "Standards of Contractor Performance Evaluation" within this contract.

Critical Outcomes, Objectives, and Performance Indicators

The following sections describe the critical outcomes, their supporting objectives, and associated performance indicators for FY2003. A list of the Battelle and DOE points-of-contact for each outcome, objective and performance indicator, shall be developed and maintained by both parties and shall be distributed to all points-of-contact and others as appropriate.

1.0 SCIENTIFIC AND TECHNOLOGICAL EXCELLENCE (60%)

Battelle conducts high-quality, leading-edge, scientific research and development programs and develops scientific capabilities that support critical mission needs.

The weight of this outcome is 60%.

The Scientific and Technological Excellence critical outcome shall measure the overall effectiveness/ performance in delivering science and technology as viewed by the DOE HQ Office of Science's (SC), and other cognizant HQ Program Offices as identified below. The contribution to the overall rating from each of the HQ Program Offices has been weighted as follows.

- Office of Science (SC) (30%)
- Assistant Secretary for Environmental Management (EM) (20%)
- Office of Defense Nuclear Nonproliferation (NA-20) (20%)
- Office of Intelligence (IN) (5%)
- Office of Counterintelligence (CN) (5%)
- Assistant Secretary for Energy Efficiency and Renewable Energy (EE) (10%)
- Assistant Secretary for Fossil Energy (FE) (10%)

The overall performance rating for this outcome will be determined by multiplying the overall value points assigned by each of the seven offices identified above by the weightings identified for each and then summing them (see Table 1.1 at the end of this section). If the HQ office provides an adjectival rating for overall performance, the value point scale outlined in Figure I-1 shall apply. The summed value points earned are then compared to Table 1.6 to determine the adjectival rating for Objectives 1.1 through 1.4.

The combined weight of Objectives 1.1 through 1.4 is 80% of this critical outcome.

Each of the HQ Program Office evaluations shall include/address the following objectives, as applicable:

1.1 Quality of Science & Technology

Reviewers will evaluate the overall quality of the research performed. Depending on the nature of the program, reviewers will consider the following.

Science: Success in producing original, creative scientific output that advances fundamental science and opens important new areas of inquiry; success in achieving sustained progress and impact on the field; and recognition from the scientific community, including awards, peer-reviewed publications, citations, and invited talks.

Technology: Whether there is a solid technical base for the work; the intrinsic technical innovativeness of the research; the importance of contributions made to the scientific and engineering knowledge base underpinning the technology program; and recognition from the technical community.

1.2 Relevance to DOE Missions and National Needs

Reviewers will consider whether the research fits within and advances the missions of DOE; contributions to U.S. leadership in international scientific and technical communities; contributions to the goals and objectives of the strategic plans of DOE and other national programs; and the extent of productive interaction with other science and technology programs. Depending on the nature of the program, reviewers will consider the following.

Science: The program's track record of success in making scientific discoveries of technological importance to DOE missions and U.S. industry; the degree of industrial interest in follow-on development of current research results; and the effective use of national research facilities that serve the needs of a wide variety of scientific users from industry, academia, and Government laboratories.

Technology: The value of successfully developing pre-commercial technology, to DOE, other federal agencies, and the national economy; the extent to which expected benefits justify the program's risks and costs; and, where appropriate, the degree of industrial interest, participation, and support.

1.3 Success in Constructing and Operating Research Facilities

Reviewers will consider whether the construction and commissioning of new facilities is on time and within budget; whether performance specifications and objectives are achieved; the safe, reliable, and environmentally responsible operation of facilities; adherence to planned schedules; and the cost-effectiveness of maintenance and facility improvements.

Reviewers of user facilities will also consider whether the user access program is effective, efficient, and user-friendly; the quality of the proposal evaluation process; the strength and diversity of user participation; the productivity of the research supported, both in science and technology; and the level of satisfaction among user groups.

1.4 Effectiveness and Efficiency of Research Program Management

Reviewers will consider the quality of research plans; whether technical risks are adequately considered; whether use of personnel, facilities, and equipment is optimized; success in meeting budget projections and milestones; the effectiveness of decision-making in managing and redirecting projects; success in identifying and in avoiding or overcoming technical problems; the effectiveness with which technical results are communicated to maximize the value of the research results and to gain appropriate recognition for DOE and the Laboratory; effectiveness in technical know-how associated with research discoveries; and the degree to which customer and stakeholder expectations are consistently met.

1.5 Create Leading-Edge Scientific Capabilities to Support Evolving DOE Mission Needs

The weight of this objective is 10%.

1.5.1 Progress against Biomolecular Systems Initiative expected outcomes

The weight of this indicator is 50%.

Description: This indicator measures progress against the expected outcomes listed in the FY2003 Biomolecular Systems Initiative (BSI) project plan, revised December 2002.

Assumptions: Performance against this indicator is dependent upon authorized funding for FY2003.

Definitions: Initiative leadership may include the Contractor Level 1 Steward for the initiative, the overall initiative leader, the leader of the initiative's technical program, and possibly a deputy leader.

Performance Evaluation: Initiative leadership will involve the DOE AMT point of contact in the progress reviews normally scheduled for the initiative. If the DOE-AMT point-of-contact determines that the normal reviews are insufficient, the DOE-AMT and the Contractor may choose to form a review group, which will include representatives of the Contractor, DOE-AMT, and possibly the HQ Office of Science. Using input from the reviews, DOE-AMT and Contractor staff will prepare a short written report on progress against the previously established indicators. The adjectival rating will be established by DOE-AMT for this indicator using the evaluation scheme identified within Section I of Appendix E.

Initiative performance will be evaluated using an assessment process that will result in a numerical performance rating based on the following metrics. During FY2003, progress will be measured in five areas:

- Recruiting
- Program development and scientific partnerships
- Technical Achievements
- Strengthen scientific reputation
- Peer Review

It is important to note one other Indicator within this Performance Evaluation and Fee Agreement identifies outcomes specific to the Biomolecular Systems Initiative. The 2.2.2.1 sub-indicator addresses facility and operations outcomes needed to achieve the 2010 Vision of the Laboratory for Systems Biology – objectives germane to the BSI. Each BSI indicator whether in 1.5.1 or 2.2.2.1, is clearly distinguishable; one does not resemble the other. For instance, the 2.2.2.1 indicator identifies outcomes for the Pilot Proteomics Facility, scope currently supported by GTL funds. The 1.5.1.3 technical achievement indicator relates to specific LDRD project outcomes, which are critical capability development measures. Each indicator will be counted only once and the Initiative director will provide the DOE-AMT POC a break out of how each item is tallied.

1.5.1.1 Recruiting

The weight of this sub-indicator is 20%

Description: The initiative continues to recruit senior scientists (level 4-6) specifically focused on systems biology. We will seek to fill one senior imaging biologist position and one mid to entry-level analytical or cell biologist position. BSI will work with the Computational Sciences and Engineering Initiative (CS&EI) leadership to recruit a senior computer scientist with expertise in data modeling and architecture in a multi-disciplinary environment. BSI will also work with CS&EI to recruit a mid to entry-level computational biologist. These BSI/CS&EI new hires will be shared appointments. Offers are to be extended by September 2003. Ratings are defined as follows.

Performance Evaluation:

Outstanding: Targeted offers for new hires are met for:
- One senior imaging biologist
- One mid to entry-level cell or analytical biologist
- One senior computer scientist
- One mid to entry-level computational biologist

Excellent: Targeted new hire offers are met with minor changes in the new hire mix.

Good: Offers extended to one mid-level biologist, either imaging, analytical or cell, and to one mid-level computer scientist, either in data architecture or computational biology, in spite of significant recruiting efforts that may include posting ads, attending job fairs associated with national scientific society meetings, inviting interview candidates for seminars and site visits, following an internal process for screening and evaluating candidates, and utilizing an internal professional recruiter.

Marginal: No offers extended and some recruiting efforts completed that included some advertising, potential candidates invited to seminars but none identified as recruits, at least three interviews conducted, and some candidate screening and evaluating completed.

Unsatisfactory: No offers extended, minimal to no recruiting completed with no ads placed, one or no recruits interviewed, and no evaluation or screening process in place.

1.5.1.2 Program development and scientific partnerships

The weight of this sub-indicator is 20%

Description: The initiative continues to build the research business base with focus on DOE Office of Biological and Environmental Research (OBER) and National Institutes of Health (NIH). While congressional appropriation decisions for FY2003 may result in limited Calls for Proposals this fiscal year; we anticipate a greater number of requests for proposals from NIH and fewer from DOE this year. Though the targeted value of proposals listed below may not materialize; every appropriate proposal opportunity will be met.

In building our research base, the initiative will continue to strengthen existing institutional relationships with Oregon Health and Science University (OHSU) and the Massachusetts Institute of Technology. These collaborations will yield results for the biological sciences and secure constituencies to build a well-funded national program.

Performance Evaluation:

Outstanding: High quality proposals submitted to DOE and NIH for upcoming calls with a focus on proteomics, cellular imaging, computational biology and visualization, and microbial research. Targeted value of multi-year proposals is $60M.

Demonstrate progress in building a national resource for biodefense in collaboration with OHSU. Submit a minimum of two major NIH proposals jointly with OHSU or other university partners including a joint Regional Center of Excellence in Biodefense Research proposal. Establish a joint project with the MIT Department of Mechanical Engineering and Biological Engineering to demonstrate data mining capability that couples theoretical and experimental studies of complex cellular systems.

Excellent: High quality proposals submitted to DOE and NIH, in addition to other funding sources, for multi-year programs totaling $50M.

Work with OHSU to identify collaboration efforts directed toward future proposals that build on mutual strengths such as bio-informatics and studies to determine the proteome of select agents of bioterrorism and novel detection approaches. Submit a minimum of one multi-disciplinary proposal in collaboration with OHSU. Partner with MIT to identify further collaboration efforts and potential demonstration projects that are directed toward future proposals in bioinformatics; submit at least one joint MIT proposal

Good: High quality proposals submitted to DOE and NIH, in addition to other funding sources, for multi-year programs totaling $35M.

OHSU scientific collaborations clearly defined with specific investigators at the R01 level, but commitments and follow-up activities to pursue joint proposals are restricted to small portions of specific projects. The MIT partnership is strengthened through current project collaborations; however, fewer new areas are explored.

Marginal: Minimal multi-year proposal activity of $20M.
Minimal progress in working with OHSU and MIT, some dialogue is maintained.

Unsatisfactory: Proposal activity less than $20M.
Little or no progress in working with OHSU and MIT

Note: Within these guidelines, points earned will be prorated on the basis of the degree to which the goals are achieved (i.e., points will be assigned proportionally to the targeted proposal values).

1.5.1.3 Technical achievements

The weight of this sub-indicator is 20%

Description: The Laboratory's strategic success in achieving a leadership position in Systems Biology is based on developing a high level of science capability to establish a national resource. Key development areas include, but are not limited to: identification and characterization of the molecular machines of life; characterization the functional repertoire of complex microbial communities; computational methods and capabilities to understand complex biological systems and predict behavior; cell response to oxidative damage and low-dose radiation; and technology-driven fundamental projects to determine how organisms respond to stress, evolve and change in the environment.

Performance Evaluation: Though research projects often do not proceed as planned and progress is dependent on a myriad of conditions and resources (feasibility of approach, availability of equipment, staffing, etc.), we have identified key LDRD projects with milestones that are important indicators of success and which we will strive to complete within the projected due dates:

- Cytomegalovirus (CMV) Proteomics Project – A comprehensive proteome comparison of five CMV strain variants, whose genomes are currently being sequenced. Significant proteomic data (greater than 50% of predicted open reading frames) on all five strains is obtained (July 2003). Camp and Smith, Principal Investigators.
- Protein-Protein Complexes Project – Feasibility studies demonstrating ability of scFv antibodies for affinity purification of proteins from organisms outside the scope of the current GTL. Identification of the major constituents in at least one protein complex using mass spectrometry will be accomplished (September 2003). Siegel, Principal Investigator.
- Single-Chain Antibody Project – Production of high affinity scFv antibodies. The isolation of antigen specific scFv clones using a variety of selection techniques, including multiplex screens, individual screens, screens accomplished by flow cytometry, magnetic bead, based screens, or a combination of two techniques, will be accomplished (August 2003). Feldhaus, Principal Investigator.

Outstanding: Progress for each milestone will be measured on a percent complete basis, milestones referenced in the approved LDRD proposals. An outstanding rating will be achieved for tasks completed in aggregate of 90% or greater. Percent complete will be calculated on progress and duration (anticipated number of days to completion).

Excellent: Progress toward completion is measured for each milestone with an aggregate percent complete range for the three milestones is 60% to 89% complete. If one or two tasks fail to materialize, more weight will be assigned to the remaining task(s).

Good: Progress toward completion is measured for each milestone with an aggregate percent complete range for the three milestones is 40% to 59% complete. If one or two tasks fail to materialize, more weight will be assigned to the remaining task(s).

Marginal: Progress toward completion is measured for each milestone with an aggregate percent complete range for the three milestones is 20% to 39% complete. If one or two tasks fail to materialize, more weight will be assigned to the remaining task(s).

Unsatisfactory: Minimal progress is made and milestones are not met.

1.5.1.4 Continued technical and scientific progress

The weight of this sub-indicator is 20%

Description: Articles are to be submitted for publication in top ranked, peer-reviewed journals for molecular biology, bio-physics, cell signaling, proteomics, and microbiology research. As we move from novel approaches and feasibility to demonstration, breakthrough developments which have been achieved the past two years will now begin to provide the basis for papers written and submitted the next few years in systems biology. This year the Initiative will continue to underscore the importance of reporting on research specifically employing systems biology approaches.

Performance Evaluation:

Outstanding: Fifty or more articles submitted for publication in peer-reviewed journals.

Excellent: Forty articles submitted for publication in peer-reviewed journals.

Good: Twenty-five articles submitted for publication in peer-reviewed journals.

Marginal: Sixteen articles submitted for publication in peer-reviewed journals.

Unsatisfactory: Less than sixteen articles submitted for publication in peer-reviewed journals.

Note: Within the above guidelines, value points earned will be prorated on the basis of the degree to which the goals are achieved (i.e. value points will be assigned proportionally to the targeted number of publications).

1.5.1.5 Peer review

The weight of this sub-indicator is 20%

Description: The BSI External Advisory/Review Committee provides guidance and feedback on (1) specific focus areas and scientific-technical content, (2) alignment of the BSI to DOE's missions and programs, (3) and collaboration and partnership strengths and direction. The DOE-AMT point-of-contact is invited to participate in the review meeting to be held in August. A copy of the written evaluation report that is prepared for the Laboratory's Research Council will be submitted to DOE-AMT. The report provides an assessment of the Initiative's progress against objectives, numerical ratings, and recommendations for future growth and outlook.

Performance Evaluation:

A rating for this sub-indicator will be computed based on the external advisor's feedback and validated by the DOE-AMT POC utilizing the following rating scale:

Outstanding: 4.0 – 3.5

Excellent: 3.4 – 2.5

Good: 2.4 – 1.5

Marginal: 1.4 – 0.5

Unsatisfactory: <0.5

1.5.2 Progress against Computational Sciences and Engineering Initiative expected outcomes

The weight of this indicator is 35%.

Description: This indicator measures progress against the expected outcomes listed in the FY2003 Computational Science and Engineering Initiative (CS&EI) Project Plan.

Assumptions: Performance against this indicator is dependent upon authorized funding for FY2003.

Definitions: Initiative leadership may include the Contractor Level 1 Steward for the initiative, the overall initiative leader, the leader of the initiative's technical program, and possibly a deputy leader.

Performance Evaluation: Initiative leadership will involve the Associate Manager for Science and Technology (AMT) POC in the progress reviews normally scheduled for the initiative. If the AMT POC determines that the normal reviews are insufficient, the AMT and the Contractor may choose to form a review group, which will include representatives of the Contractor, AMT, and possibly the HQ Office of Science. Using input from the reviews, AMT and Contractor staff will prepare a short written report on progress against the previously established indicators. The adjectival rating will be established by DOE-RL for this indicator using the evaluation scheme identified within Section I of Appendix E.

It is important to note one other Indicator within this Performance Evaluation and Fee Agreement identifies outcomes pertinent to the Computational Science and Engineering Initiative. The 2.2.2.2 indicator addresses computing resources and facility space needed to achieve the PNNL 2010 Vision for Computational Sciences and Engineering – objectives germane to the CS&EI. Each CS&EI indicator whether in 1.5.2 or 2.2.2.2, is distinguishable in and of itself; one does not resemble the other.

1.5.2.1 Continued technical and scientific progress

The weight of this sub-indicator is 60%

Description: Continued technical and scientific progress will be evaluated using an assessment process that will result in a numerical performance rating based on the metrics discussed in the following list. The following goals will be measured:

FY2003

- In molecular science and nanoscience, extend the Self-Consistent-Charge Density Functional Tight-Binding model to implement atomic forces and couple them to drivers for energy minimization, transition state determination, force constant calculation, and molecular dynamics simulations. This will permit quantum modeling and simulation of systems that are at the heart of biochemical reactivity and nanoscale science. No other approaches are currently able to give a direct theoretical account of quantum mechanical effects in systems of this size. (Gutowski)
- In remote sensing analysis, develop a parallel computer implementation of the prototype Bayesian Regression Tool for hyperspectral sensing data. The Bayesian Regression Tool promises to provide improved measurement estimates from sensing data as well as a more realistic assessment of the estimates true uncertainty. (Heasler)
- In high performance image analysis, complete the Parallel Computational Environment for Imaging Science (PiCEIS) workbench prototype, adding a parallel data input/output feature. This project, in concert with other ISAT initiative efforts, is developing in-core and out-of-core computational methods that will enable the rapid processing and analysis of very large images, for example high-resolution and multi-sensor imagery, and provide a framework for deployment of new image processing algorithms. (Jones)
- In computational engineering, formulate and implement a damage model accounting for fiber/matrix debonding and matrix cracking of short-fiber thermoplastic hybrid composite

structures. This capability is key to the engineered design, manufacturing, and life prediction of thermoplastic composites essential for lightweight automotive materials and high-strength weight-reduction materials for vehicles and wind energy systems. (Khaleel)

- In computer science, design and implement a knowledge discovery and visual data mining tool that can be used to evaluate large numbers of gene expression profiles. This will enable us to isolate the very similar regions in large genomes that may contribute to the functional identification of genes, as well as the very different regions that may reveal the phenotypic changes caused by amplification, deletion, and mutation of nucleotides and genome rearrangement. (Wong)
- In environmental science, develop and demonstrate a parallel implementation of the water-oil-air operational mode for multi-phase fluid flow on a carbon tetrachloride vadose zone Hanford Site problem. Understanding field scale behavior of carbon tetrachloride in vadose zone sediments is a critical need at the Hanford Site, due to the large amount of this chemical that is unaccounted for and its potential health risk. (Yabusaki)

Performance Evaluation:

Outstanding: Complete five or more of the above goals

Excellent: Meet four of the above goals

Good: Meet three of the above goals

Marginal: Meet two of the above goals

Unsatisfactory: Meet less than two of the above goals

1.5.2.2 Increase visibility of Computational Science activities at PNNL

The weight of this sub-indicator is 20%

Description: This sub-indicator will measure the ability of the Contractor to increase focus on the Computational Science and Engineering activities within the Laboratory. The AMT POC will utilize the following metrics in determining the evaluation rating:

- Submit at least 10 new papers related to capability developments for publication in peer-reviewed journals or conferences during FY2003.
- Present at least 5 papers related to capability developments at national or international computing, mathematics or statistics conferences in FY2003.
- Continue the Computational Science and Engineering seminar series and host at least 5 seminars.
- Organize and conduct PNNL's research exhibit at the SC2002 conference and exposition.
- Keep PNNL's Computational Science and Engineering website up-to-date with visible work.

Performance Evaluation: The overall rating for this sub-indicator will be determined by the average of the five review areas (bullets) identified above per the following rating scale. Each review area will be weighted equally.

Outstanding: 4.0 - 3.5

Excellent: 3.4 - 2.5

Good: 2.4 - 1.5

Marginal: 1.4 - 0.5

Unsatisfactory: <0.5

Note: Each of the five metrics (bullets) listed under this sub-indicator will be assigned a prorated value point rating based on the degree to which the goal is satisfied.

1.5.2.3 Peer review

The weight of this sub-indicator is 20%

Description: The CS&EI Advisory Committee provides guidance and feedback on (1) specific focus areas and scientific-technical content, (2) business strategy and execution. The AMT POC is invited to participate in the Advisor's meeting and review to be held in August. A copy of the written evaluation report that is prepared for the Laboratory's Research Council will be submitted to the AMT POC. The report provides an assessment of the Initiative's progress against objectives, numerical ratings, and recommendations for future growth and outlook.

Performance Evaluation: A rating for this sub-indicator will be computed based on the external advisor's feedback and validated by the AMT POC utilizing the following rating scale:

Outstanding:	4.0 - 3.5
Excellent:	3.4 - 2.5
Good:	2.4 - 1.5
Marginal:	1.4 - 0.5
Unsatisfactory:	<0.5

1.5.3 Progress against the Nanoscience and Nanotechnology Initiative expected outcomes

The weight of this indicator is 15%.

Description: This indicator measures progress against the expected outcomes listed in the FY2002 Nanosciences and Technology Initiative (NSTI) project plan.

Assumptions: Performance against this indicator is dependent upon authorized funding for FY2003.

Definitions: Initiative leadership may include the Contractor Level 1 Steward for the initiative, the overall initiative leader, the leader of the initiative's technical program, and possibly a deputy leader.

Performance Evaluation: Initiative leadership will involve the AMT point of contact (POC) in the progress reviews normally scheduled for the initiative. If the AMT POC determines that the normal reviews are insufficient, the AMT and the Contractor may choose to form a review group, which will include representatives of the Contractor, AMT, and possibly the HQ Office of Science. Using input from the reviews, AMT and Contractor staff will prepare a short written report on progress against the previously established indicators. The adjectival rating will be established by AMT for this indicator using the evaluation scheme identified within Section I of Appendix E.

1.5.3.1 Increase visibility of Nanoscience and Nanotechnology activities at PNNL

The weight of this sub-indicator is 33%

Description: This sub-indicator will measure the ability of the Contractor to increase focus on the Nanoscience and Nanotechnology Activities within the Laboratory. The AMT POC will utilize the following metrics in determining the evaluation rating:

- Submit at least eleven new papers for publication in peer-reviewed journals during FY2003 (this represents a minimum of one per NSTI LDRD program).
- Present at least ten technical papers at national or international meetings.
- Continue NSTI seminar series and host at least five seminars with distinguished speakers from each of a) other DOE labs; b) DoD research labs; and c) Tier 1 Universities.
- Overhaul NSTI website & keep up-to-date with current visible work to reflect revised priorities of new leadership.

Performance Evaluation: The overall rating for this sub-indicator will be determined by the average of the four review areas (bullets) identified above per the following rating scale. Each review area will be weighted equally.

Outstanding: 4.0 - 3.5

Excellent: 3.4 - 2.5

Good: 2.4 - 1.5

Marginal: 1.4 - 0.5

Unsatisfactory: <0.5

Note: Each of the four metrics (bullets) listed under this sub-indicator will be assigned a prorated value point rating based on the degree to which the goal is satisfied.

1.5.3.2 Project and program development

The weight of this sub-indicator is 33%

Description: This sub-indicator will measure development of the Nanoscience and Nanotechnology Program and Projects within the Laboratory. The AMT POC will utilize the following metrics in determining the evaluation rating:

- Prepare at least three proposals in response to FY2003 BES calls for proposals in computational nanoscience and in catalysis.
- Reconvene the outside steering committee set up in FY2002 with at least 60% repeat reviewers to gain a consistent assessment of initiative direction and to provide project development and direction advice.
- Hire at least two new staff contributing to NSTI activities. One senior staff member should be in the new focus area of nanobiology.

Performance Evaluation: The overall rating for this sub-indicator will be determined by the average of the four review areas (bullets) identified above per the following rating scale. Each review area will be weighted equally.

Outstanding: 4.0 - 3.5

Excellent: 3.4 - 2.5

Good: 2.4 - 1.5

Marginal: 1.4 - 0.5

Unsatisfactory: <0.5

Note: Each of the three metrics (bullets) listed under this sub-indicator will be assigned a prorated value point rating based on the degree to which the goal is satisfied.

1.5.3.3 Scientific impact

The weight of this sub-indicator is 34%

Description: The NSTI aims to achieve the following minimum set of scientific advancements in our focus areas of catalysis and detection. The results from the external Peer Review Advisory Committee will also be utilized by the AMT POC to determine performance against this sub-indicator. The AMT POC and the Contractor's initiative leadership will agree jointly in advance upon the committee guidelines for rating overall initiative impact.

- Demonstrate a silicate-armored enzyme with stability > 10x that of similar enzymes in solution (measured in terms of the residual catalytic activity) and develop a conductive nanoporous matrix on which to immobilize them.
- Measure modified rates of NO reduction and CO oxidation on metal cluster-decorated MgO nanowires as compared to macroscopic metal surfaces.
- Demonstrate and quantify CO oxidation rate on ternary quantum dot structures grown using molecular beam epitaxy (e.g. Au on TiO_2 quantum dots).
- Characterize the sensing performance characteristics of diverse functionalized nanoparticle films on chemiresistor sensors.

Performance Evaluation: This sub-indicator will be evaluated on the basis of goals achieved and the results of the advisory committee's review and subsequent rating, commencing with the following rating scale:

Outstanding: Four goals achieved

Excellent: Three goals achieved

Good: Two goals achieved

Marginal: One goal achieved

Unsatisfactory: No goals achieved

1.6 Improve Scientific Impact of EMSL User Program

The weight of this objective is 10%.

1.6.1 Increase the impact of the EMSL User Program by establishing science grand challenges that engage high visibility user communities.

The weight of this indicator is 50%.

Description: Establish two science grand challenges that cross-cut EMSL capabilities that will be closely aligned with major DOE initiatives and programs. The science grand challenges will be led by internal and external senior scientists who will have the responsibility for managing the grand challenges and building a solid user community in each area.

The following metrics will be used to evaluate this Performance indicator:

- Work closely with OBER, the EMSL User Advisory Committee (UAC), and the AMT to develop and issue a plan for development of the scientific grand challenges (Q1 FY2003).
- Work closely with OBER to establish a steering committee of recognized authorities for each grand challenge (Q2 of FY2003).
- The steering committees will organize and conduct one or more facilitated workshops for the purpose of establishing the scope of the science grand challenges (Q3 FY2003). For

FY2003, science grand challenges are anticipated in the areas of biology and sub-surface science.
- Provide scope to SC for their use in preparing a call for the science grand challenges (Q4 FY2003).

Assumptions: Timely OBER approval and budget for each science grand challenge.

Definitions: Timely OBER approval means approval in such a timeframe that the schedule for implementation is not negatively impacted.

Performance Evaluation: Each of the above metrics (bullets) will be assigned a pro-rated value point rating on a scale of 0-4 by the DOE POC based on level of achievement. Where scheduled milestones are identified, 0.2 value points will be deducted for each month schedule slip. Total value points for this Performance Indicator will be the average of all the metrics. Total value points will be transferred to Table 1.2 where weighted averages will be computed and rolled up.

1.6.2 Develop and implement an optimal model for EMSL user facility operations (user program).

The weight of this indicator is 50%.

Description: Develop and implement a "best practices" model for user facility operations based on evaluation of three to six other successful user facilities. After evaluation of the selected facilities, the Contractor, in close contact with OBER, the EMSL UAC, and the AMT, will identify and implement a model or combination of models that enhances the operation of EMSL as a best-in-class user facility. The following metrics will be used to evaluate this Performance Indicator:

- Hold a workshop and engage the UAC to evaluate user models and best practices and create a draft model for EMSL operations (Q1 FY2003).
- Refine the model, develop an EMSL Facility Operations Manual (EFOM), and issue to OBER for approval (Q3 FY2003).
- Implement the new EMSL facility operations model as outlined in the EFOM (Q4 FY2003).

Assumptions: Timely OBER approval of the EMSL facility operations model.

Definitions: Timely OBER approval means approval in such a timeframe that the schedule for implementation is not negatively impacted.

Performance Evaluation: Each of the above metrics (bullets) will be assigned a pro-rated value point rating on a scale of 0-4 by the DOE POC based on level of achievement. Where scheduled milestones are identified, 0.2 value points will be deducted for each month schedule slip. Total value points for this Performance Indicator will be the average of all the metrics. Total value points will be transferred to Table 1.2 where weighted averages will be computed and rolled up.

HQ Program Office	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
Office of Science			30%		
Assistant Secretary for Environmental Management			20%		
Office of Defense Nuclear Nonproliferation			20%		
Office of Intelligence			5%		
Office of Counterintelligence			5%		
Assistant Secretary for Energy Efficiency and Renewable Energy			10%		
Assistant Secretary for Fossil Energy			10%		
				Overall Program Office Total	

Table 1.1. Objectives 1.1 - 1.4 S&T Excellence Evaluation Score Calculation for Program Offices

ELEMENT	Adjectival Rating	Value Points	Indicator Weight	Total Points	Objective Weight	Total Points
1.0 Scientific and Technological Excellence						
Objectives 1.1 through 1.4: Program Office Total Scores (from Table 1.1)					80%	
1.5 Create leading-edge scientific capabilities to support evolving DOE Mission needs						
1.5.1 Progress against Biomolecular Systems Initiative expected outcomes (roll up from Table 1.3)			50%			
1.5.2 Progress against Computational Sciences and Engineering Initiative expected outcomes (roll up from Table 1.4)			35%			
1.5.3 Progress against the Nanoscience and Nanotechnology Initiative expected outcomes (roll up from Table 1.5)			15%			
Objective 1.5 Total					10%	
1.6 Improve Scientific Impact of EMSL User Program						
1.6.1 Increase the impact of the EMSL User Program by establishing science grand challenges that engage high visibility user communities.			50%			
1.6.2 Develop and implement an optimal model for EMSL user facility operations (user program).			50%			
Objective 1.6 Total					10%	
Critical Outcome 1.0 Total						

Table 1.2. Science and Technological Excellence Critical Outcome Overall Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
1.5.1 Progress against Biomolecular Systems Initiative expected outcomes					
1.5.1.1 Recruiting			20%		
1.5.1.2 Program development and scientific partnerships			20%		
1.5.1.3 Technical achievements			20%		
1.5.1.4 Continues technical and scientific progress			20%		
1.5.1.5 Peer review			20%		
				Indicator 1.5.1 Total	

Table 1.3. Performance Indicator 1.5.1 Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
1.5.2 Progress against Computational Sciences and Engineering Initiative expected outcomes					
1.5.2.1 Continued technical and scientific progress			60%		
1.5.2.2 Increase visibility of Computational Science activities at PNNL			20%		
1.5.2.3 Peer review			20%		
				Indicator 1.5.2 Total	

Table 1.4. Performance Indicator 1.5.2 Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
1.5.3 Progress against the Nanoscience and Nanotechnology expected outcomes					
1.5.3.1 Increase visibility of Nanoscience and Nanotechnology activities at PNNL			33%		
1.5.3.2 Project and program development			33%		
1.5.3.3 Scientific impact			34%		
				Indicator 1.5.3 Total	

Table 1.5. Performance Indicator 1.5.3 Score Calculation

Total Score	4.0 - 3.5	3.4 - 2.5	2.4 - 1.5	1.4 - 0.5	<0.5
Final Rating	Outstanding	Excellent	Good	Marginal	Unsatisfactory

Table 1.6. Scientific and Technological Excellence Critical Outcome Final Rating

2.0 MANAGEMENT AND OPERATIONS EXCELLENCE (25%)

Battelle will manage and operate PNNL with distinction, becoming the DOE benchmark standard for Laboratory management, providing stewardship of DOE's assets, and protecting the health and safety of workers, the public, and the environment.

The weight of this outcome is 25%.

The Management and Operations Excellence Critical Outcome shall measure the overall effectiveness/ performance of a number of aspects of Laboratory operations including ES&H management, operational excellence, facility maintenance, energy efficiency, business management, Safeguards and Security, capability alignment with current and future mission needs, and the development of integrated management systems capable of delivering products and services and complying with applicable requirements as viewed by the AMT, and other cognizant RL and/or HQ organizations. Performance objectives and indicators to be utilized in the evaluation of the Management and Operational Excellence Critical Outcome have been developed in partnership with the appropriate DOE HQ, AMT, and RL counterparts and are listed below. These performance objectives and indicators identify significant activities/requirements important to the success of the Laboratory's operations as identified by the Department and/or its customers. The reviewers (AMT, RL and/or HQ) as a primary means of determining the overall Management and Operations Excellence Critical Outcome performance rating shall utilize these objectives and indicators.

Each of the performance indicators has an associated performance evaluation metric that translates the level of performance to an adjectival rating. Scoring of the individual performance indicators is based on the point scheme identified within Section I of this document. The overall adjectival rating is then computed by multiplying the weight of each performance indicator, and summing them all to develop an overall score for each objective. The score for each objective within the outcome is then computed in the same manner to arrive at an overall score for the outcome (see Table 2.1 at the end of this section). The overall value points earned are then compared to Table 2.8 to determine the overall adjectival rating.

Objectives and Performance Indicators:

2.1 Provide management and operational excellence in achieving key contract performance requirements

The weight of this objective is 50%.

2.1.1 Provide ESH&Q management systems that sustain and enhance excellence in Laboratory operations

The weight of this indicator is 25%.

Description: This indicator is a composite of performance measures designed to provide an overall picture of ESH&Q performance and comprise the safety performance objectives, performance measures, and commitments called for in DEAR 970.5223-1 Integration of Environment, Safety, and Health into Work Planning and Execution (DEC 2000).

Additional descriptions of the measures and targets are provided below the following table.

Performance Measures	Targets
1) Demonstrate excellence in the Safety and Health program - *Total Recordable Case Rate*	Battelle's 3 yr rolling average is ≤ 2.5 cases per 200,000 work hours
2) Demonstrate excellence in the Safety and Health program - *Lost Workday Case Incident Rate (now DART)*	Battelle's 3 yr rolling average is ≤ 1.1 cases per 200,000 work hours
3) Annual Safety and Health evaluation. Deliver an annual self assessment that evaluates the following performance criteria: management commitment; employee involvement; hazard prevention and control; hazard analysis; and safety and health training.	Overall numerical rating of 9-12 - (Based on a scale of 1-12)
4) Conformance of the Environmental Management System to ISO 14001 standard	ISO 14001 registration retained through FY2003
5) Reportable Occurrences of Release to the Environment	≤ 2 events
6) Low Level Radioactive Waste Generation (P2). Reduce amount of waste generated by Lab.	≤ 224 Cubic Meters/yr
7) Hazardous Waste Generation (P2). Reduce amount of waste generated by Lab.	≤ 11.9 MT/yr
8) Spread of Radioactive Contamination	≤ 3 events

1) **Excellence in Safety & Health Program - *Total Recordable Case Rate***
Work-related injury or illness, which resulted in loss of consciousness, restriction of work or motion, transfer to another job, or required medical treatment beyond first aid. Total Recordable Case Rate (TRCR) is the number of total recordable cases per 200,000 hours worked. Source of data: Laboratory SHIMS. This metric is plotted monthly using the most recent 36 months of data.

This target is based on the most recent 3 yrs of data (including subcontractors) compared to the current Bureau of Labor Statistics (BLS) Standard Industrial Classification (SIC) #873 most recent annual average for CY2001, currently 2.5 cases/200,000 hrs.

2) **Excellence in Safety & Health Program - *Lost Workday Case Incident Rate***
Work-related injury or illness, which resulted in days away from work and/or days of restricted work activity. Lost Workday Case Incident Rate, renamed now to Days Away, Restricted or Transferred (DART) is the number of lost workday cases per 200,000 hours worked. Source of data: PNNL SHIMS. This metric is plotted monthly using the most recent 36 months of data.

This target is based on the most recent 3 yrs of data (including subcontractors) compared to the current Bureau of Labor Statistics (BLS) Standard Industrial Classification (SIC) #873 most recent annual average for CY2001, currently 1.1 cases/200,000 hrs.

3) **Annual Safety and Health Evaluation**
To demonstrate excellence in implementation of the Safety and Health (S&H) program, and maintenance of the performance measures cited in item 3 of the above table, an annual evaluation of the S&H program implementation is to be conducted by the Contractor. A rating is established by an evaluation team to document the Contractor's overall performance. The ratings are 9-12 = Good; 5-8 = Adequate; and 0-4 = Improvement Required. The FY2003 target is to achieve a rating of "Good."

4) **Environmental Management System Conformance to ISO 14001**
ISO 14001 defines an internationally best management practice for an environmental management system. Conformance to the standard is validated by 3rd party audits/oversight conducted by an auditing body recognized by the U.S. Registrar Accrediting Body (RAB). Target: ISO registration will be retained through FY2003.

5) **Reportable Occurrences of Release to the Environment**
Releases of radionuclides, hazardous substances, or regulated pollutants that are reportable to federal, state, or local agencies. Source of data is review of occurrence reports. All 2A thru E are considered for significance on a case-by-case basis.

6) **Low Level Waste Generation (P2)**
Low Level Waste (LLW) is waste that contains radioactivity and is not classified as high-level waste, transuranic waste, or spent nuclear fuel, or by-product material. Test specimens of fissionable material that are irradiated for research and development only, and not for the production of power or plutonium, may be classified as LLW, providing the concentration of transuranic is less than 100 nanocuries per gram (nCi/g).

FY2003 target is 224 cubic meters. Currently generated waste (as opposed to legacy waste) is tracked in PNNL's Integrated Waste Tracking System. Responds to DOE memorandum of Nov 12, 1999 *"Pollution Prevention and Energy Efficiency Leadership Goals for Fiscal Year 2000 and Beyond."*

7) **Hazardous Waste Generation (P2)**
Hazardous Waste includes 1) RCRA-hazardous waste, 2) State-only hazardous waste, and 3) TSCA waste.

a) RCRA-Hazardous Waste: Wastes that exhibit any of the characteristics of hazardous waste identified in 40 Code of Federal Regulations (CFR) 261, Subpart C (e.g., ignitable, corrosive, reactive, acutely hazardous, or acutely toxic), or that are listed in 40 CFR 261, Subpart D, "List of Hazardous Waste."
b) State-Only Hazardous Waste: Waste regulated under the Washington Administrative Code (WAC) Dangerous Waste Regulations in WAC 173-303 that is not also RCRA-regulated waste.
c) TSCA Waste: Hazardous chemical wastes, both liquid and solid, containing more than 50 parts per million (ppm) of PCBs or PCBs regulated for disposal.

FY2003 target is 11.9 metric tons. Currently generated waste (as opposed to legacy waste) as tracked in PNNL's Integrated Waste Tracking System. Responds to DOE memorandum of Nov 12, 1999 *"Pollution Prevention and Energy Efficiency Leadership Goals for Fiscal Year 2000 and Beyond."*

8) **Spread of Radioactive Contamination**
Number of instances of uncontrolled unwanted (i.e., non-legacy) spread of radioactive contamination meeting the criteria of DOE M 232.1-1A, ORPS Group 1D are evaluated for applicability.

Performance Evaluation:

Outstanding:	7 or more measures met
Excellent:	6 measures met
Good:	4 - 5 measures met
Marginal:	3 measures met
Unsatisfactory:	2 or less measures met

2.1.2 Performance against Business Management sub-indicators

The weight of this indicator is 25%.

2.1.2.1 Cost Management Trends: Overhead cost as a percent of Laboratory's 1830 fully burdened average charge out rate

The weight of this sub-indicator is 50%.

Description: The percent of the Laboratory's 1830 fully burdened direct average charge out rate that is overhead versus salary and fringe. It is the goal of the Laboratory to optimize the amount of labor cost charged to customers that is driven by overhead costs compared to the cost of direct salary and fringe. By monitoring the 1830 fully burdened direct average charge out with the two components, overhead vs. salary and fringe, management can demonstrate the impact of pricing and rate decisions to customers.

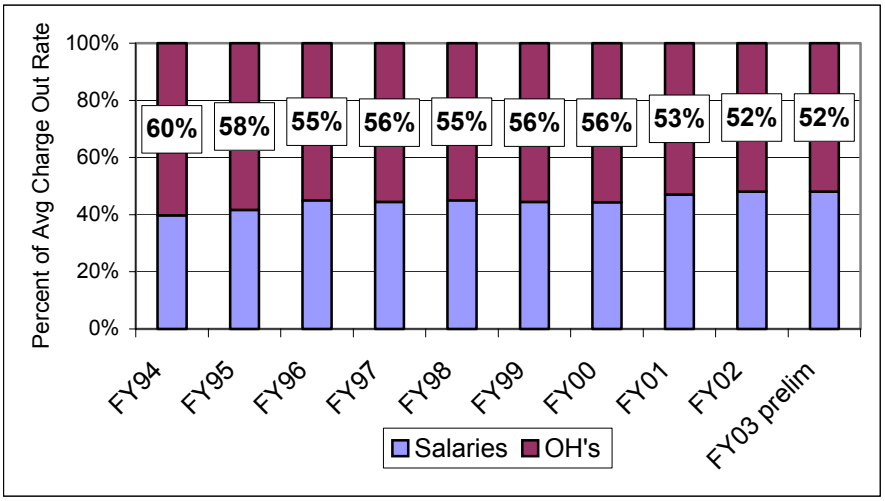


Figure 2.1. Historic Salaries and Overhead Costs as a percent of average charge-out rate.

Definitions:
Overhead: All labor, material and other applicable costs, which cannot be identified as directly benefiting a specific project. Allocated at the company or organizational level.

Salaries: The cost specifically associated with staff compensation including fringe benefits.

Fringe: Cost of allowable benefits paid to staff including taxes, insurance, and paid absences such as vacation, holidays and sick time.

1830 Average Charge-Out Rate: The total burdened labor dollars charged direct to 1830 clients divided by the total number of hours associated with these dollars. The rates include the cost of allowable salaries, benefits, and applied overheads.

Assumptions: The FY2003 preliminary target is based on the Contractor's overall aspiration for this metric coupled with the current FY2003 business projections, which include level funding from EM for safeguards and security activities. Any significant change in programmatic funding will have an impact on our FY2003 estimate.

Performance Evaluation (the target level for each evaluation category has been reduced by 1% point from FY2002):

Outstanding: FY2003 overhead costs are 51% or less of the total 1830 average charge out rate

Excellent: FY2003 overhead costs are greater than 51% but less than or equal to 53% of the total 1830 average charge out rate

Good: FY2003 overheads costs are greater than 53% but less than or equal to 55% of the total 1830 average charge out rate

Marginal: FY2003 overhead costs are greater than 55% but are less than 57% of the total 1830 average charge out rate

Unsatisfactory: FY2003 overhead costs are greater than or equal to 57% of the total 1830 average charge out rate

2.1.2.2 Cost Management Trends: Labor Overhead as a multiplier on the 1830 direct charged operating labor costs

The weight of this sub-indicator is 25%.

Description: For every dollar of directly charged labor cost to a client, an overhead amount is applied. Minimizing the multiplier effect of this overhead is the goal of the Laboratory. This can be achieved by either maximizing the amount of direct charged labor to clients (i.e. grow the business) or by reducing the actual amount of overhead costs incurred; however, it is not desirable to reduce all overhead costs such as Laboratory Directed Research and Development or staff development and training costs.

While the labor multiplier is the measured indicator, our third party multiplier and composite multiplier are effective metrics to track relative to the Laboratory's ability to compare its status with other National Laboratories as well as other non-profit Laboratories. FY2002 values are displayed numerically below.

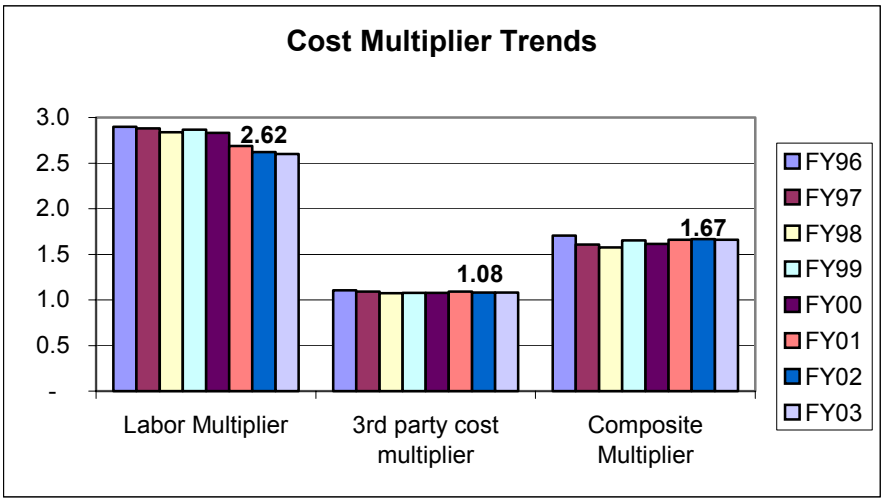


Figure 2.2: Historic multipliers on direct costs.

Definitions:

Overhead: All labor, material and other applicable costs, which cannot be identified as directly benefiting a specific project. Allocated at the company or organizational level.

Direct costs: All labor, material and other applicable costs, which is identified as directly benefiting a specific project. Incurred at the project level.

Multiplier: The total cost divided by the amount of direct costs incurred (that is, less overheads).

Assumptions: The FY2003 preliminary target is based on the Contractor's current FY2003 business projections, which include level funding from EM for safeguards and security activities. Any significant change in programmatic funding and the mix of that funding will have an impact on our FY2003 estimate. Final negotiations around the Contractor's contract terms may also impact this metric.

Performance Evaluation:

Outstanding: FY2003 labor cost multiplier is 2% or more improved over FY2002

Excellent: FY2003 labor cost multiplier is improved by more than 1% but less than 2%

Good: FY2003 labor cost multiplier is within 1%

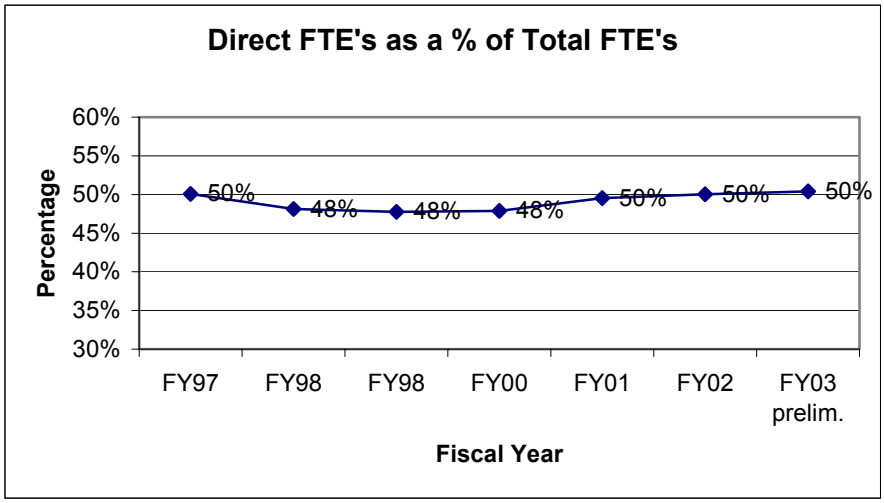
Marginal: FY2003 labor cost multiplier deteriorates by more than 1% but less than 2%

Unsatisfactory: FY2003 labor cost multiplier deteriorates by more than 2%

2.1.2.3 Resource Management trends: Direct FTE's as a percent of the total Laboratory FTE's

The weight of this sub-indicator is 25%.

Description: The Contractor's direct FTE's represent the primary indicator of resource deployment to customers. It also represents the primary source of overhead recovery. Monitoring the level of direct FTE's is an institutionalized management practice at the Laboratory. Evaluating direct FTE's relative to the total FTE's available in the Laboratory indicates a measure of the Contractor's resource management.



Data Table	FY97	FY98	FY99	FY00	FY01	FY02	FY03 prelim.
Direct	1,585	1,514	1,511	1,529	1,615	1,671	1,688
Total	3,164	3,139	3,184	3,206	3,261	3333	3,375
% of Total	50%	48%	48%	48%	49%	50%	50%

Figure 2.3. Historic Levels of Full Time Equivalent (FTE) Employees

Definitions:
Full-Time Equivalent (FTE): Total hours charged by all staff during a particular report period divided by the total number of productive hours available during that period (1,832 hours per fiscal year). Provides an indicator of the equivalent number of full time staff.

Direct FTE: Number of Full-Time Equivalent Staff charged to final cost objectives.

Final cost objective: Source of funding provided directly by a client via a contact.

Assumptions: The FY2003 FTE assumptions are based on our aspirations for this target and the current FY2003 business planning projections. Direct FTE's assume direct funding of safeguards and security; funding variability will impact our direct FTE assumptions and the estimated target will need to be renegotiated and incorporated through the approved change control process.

Performance Evaluation: (all evaluation categories have been increased by 1% point over FY2002 targets):

Outstanding: FY2003 direct FTE's are greater than or equal to 51% of the total Laboratory FTE's

Excellent: FY2003 direct FTE's are less than 51% but greater than 50% of the total Laboratory FTE's

Good: FY2003 direct FTE's are less than or equal to 50% but are greater than 49% of the total Laboratory FTE's

Marginal: FY2003 direct FTE's are less than or equal to 49% but are greater than 48% of the total Laboratory FTE's

Unsatisfactory: FY2003 direct FTE's are less than or equal to 48% of the total Laboratory FTE's

2.1.3 Sustain and enhance the effectiveness of Integrated Safeguards and Security

The weight of this indicator is 25%.

Safeguards and Security (SAS) is integrated into the culture of the organization for effective deployment of the management system.

Description: This indicator will assess the degree to which the requirements and practices of the Safeguards and Security management system are integrated into the day-to-day operating culture of the Laboratory. The degree of integration will be determined based on a composite of performance measures designed to provide an overall picture of the effectiveness of Integrated SAS Management. The score shall be derived from the composite average received during the reporting period.

Performance Measures

Demonstrate improvements in Integrated Safeguards and Security Management System processes and functions

Continually assess SAS processes in order to affect appropriate enhancements or actions maintaining effective and efficient operational practices, ensuring long-term stewardship of assets and resources, and playing a key role in supporting the Laboratory's focus on delivering excellent research.

Indicator Description	Specified Level	Cumulative Score
Internal SAS Program Key Components – Key elements of the SAS Program are monitored for process effectiveness and achievement of goals:	Outstanding - Identified goals/key elements are achieved.	3.5 - 4
	Excellent - Majority of identified goals/key elements are achieved	3 - <3.5
	Good - Most goals/key elements achieved; minor issues	2 - < 3
	Marginal - Few goals/key elements achieved; issues identified	1 - <2
	Unsatisfactory - Significant issues; goals not being achieved	0 - <1

Milestone Date – Conduct routine reviews of selected processes and provide results to appropriate management. Data will be reported and collected on a monthly, quarterly and annual basis (as determined through identified key components/elements listing). Targets may be adjusted based on need/circumstances.

Included is the evaluation of performance in Safeguards and Security programmatic areas at protecting assets and compliance/performance as measured by internal and external evaluations and performance against agreed upon corrective action plans.

Key Elements/Components

The following measures are considered key indicators to demonstrate performance management to the desired outcomes for Safeguards and Security. Items may be added or modified based on need.

Description	Target/Goal	Points
Monthly security events at the Laboratory are tracked and categorized by: • Building (location) • Specific types of more significant events • organization • Root cause • Date of occurrence Types of corrective action(s) implemented by line management are tracked. Quarterly	Acceptable range is ≤3 security events per month.	4
	N/A	3
	N/A	2
	>3 ≤5 security events per month.	1
	>5 security events per month	0

The percentage of incidents self-reported shall be monitored and tracked. Those Incidents of Security Concern self-reported by staff members versus the number discovered (IMI 1, 2). Monthly	Maximum of 20% of incidents not self reported	4
	Maximum of 21%-30% of incidents not self reported	3
	Maximum of 31%-40% of incidents not self reported	2
	Maximum of 41%-50% not self reported	1
	>50% not self reported	0
Classification/UCNI - Correct identification of Classified and Unclassified Controlled Nuclear Information (UCNI) -Loss/unaccounted for security interest rates due to inappropriate or lack of proper classification (based on level of severity) Pass/Fail Quarterly Metric	Minimum of 4% of all publications are reviewed by the Classification Office per quarter	4
	Minimum of 3% of all publications are reviewed by the Classification Office per quarter	3
	Minimum of 2% of all publications are reviewed by the Classification Office per quarter	2
	Minimum of 1% of all publications are reviewed by the Classification Office per quarter	1
	No oversight reviews	0
Unclassified Cyber Security. Significant agreed upon metrics shall be monitored and measured to determine the overall effectiveness of the Cyber Security Program. These can include: • Network Security Scan statistics/results • Anti-Virus Tool effectiveness • Employee Awareness • System Vulnerabilities These metrics will be initiated in order to establish a baseline from which to measure the program against in the future. Annual metric	Establish reasonable and effective baseline	4
	N/A	3
	N/A	2
	N/A	1
	Fail to establish a reasonable and effective baseline	0
Employee and Management awareness of their SAS responsibilities. Line management and staff demonstrate their commitment to SAS through completion of required SAS courses. Monthly	95% of the employees are current in their SAS education requirements	4
	85%-94% of the employees are current in their SAS education requirements	3
	75%-84% are current	2
	60%-74% are current	1
	<60% are current	0
Security clearance justifications are maintained – clearances are maintained and processed when necessary. 100% of Selective Reinvestigation Program (SRP) cases are submitted in accordance with the schedule.	100% of SRPs are submitted in accordance with schedules.	4
	95-99% of SRPs are submitted in accordance with schedules.	3
	90-94% of SRPs are submitted in accordance with schedules.	2
	85-89% of SRPs are submitted in accordance with schedules.	1

Monthly	<85% of SRPs are submitted in accordance with schedules.	0
FNVA requests are processed in a timely manner in accordance with requirements. Overall processing time for all FNVA requests shall be completed within 10 days. Other items tracked that impact this metric include: • Indices processed: Lead time provided by requestor • Type of request (involves sensitive; indices; etc) Monthly	≥80% of requests are processed within 10 days	4
	≥75%<80% of requests are processed within 10 days	3
	≥70%<75% of requests are processed within 10 days	2
	≥65%<70% of requests are processed within 10 days	1
	<65% of requests are processed within 10 days	0
Foreign Travel requests are processed in accordance with requirements. Foreign Travel trip reports due to be closed (within 30 days of return) are submitted to the Foreign Travel office in accordance with the requirements. Monthly	20% or fewer trip reports are outstanding (>30 days past due)	4
	25-29% trip reports are outstanding (>30 days past due)	3
	30-35% trip reports are outstanding (>30 days past due)	2
	36-40% trip reports are outstanding (>30 days past due)	1
	>40% trip reports are outstanding (>30 days past due)	0
Nuclear material control and accountability performance tests and resulting corrective actions are satisfactorily completed. Two tests are performed each year (pass/fail). Annual Metric	1 conducted each 6 mo's (2 annually) – both pass	4
	N/A	3
	1 conducted each 6 mo's (2 annually) – one pass/one fail	2
	1 conducted annually - pass	1
	1 conducted each 6 mo's (2 annually) – both fail	0
Self-Assessments – completion of internal assessments in accordance with schedules as well as completion of corrective actions in accordance with schedules. Annual	100% of scheduled assessments and corrective actions shall be completed in accordance with agreed upon schedules (to include approved schedule changes)	4
	90%-99%	3
	80%-89%	2
	70%-79%	1
	<70%	0
External evaluations – Satisfactory (or above) ratings and all corrective actions are developed/completed in accordance with schedules Annual	Satisfactory (or above) composite rating and 100% of corrective actions are completed in accordance with schedules	4
	90%-99%	3
	80%-89%	2
	70%-79%	1
	<70%	0

Performance Evaluation:

Outstanding: Performance meets the specified level averaged for the indicators (3.5-4 pt average)

Excellent: Performance meets the specified level averaged for the indicators (2.5-3.4 pt average)

Good: Performance meets the specified level averaged for the indicators (1.5-2.4 pt average)

Marginal: Performance meets the specified level averaged for the indicators (1-1.4 pt average)

Unsatisfactory: Performance less than Marginal (<1 pt average)

2.1.4 Provide management and operational excellence in achieving investment in maintenance and energy conservation efforts

The weight of this indicator is 25%.

The Contractor implements active, value-based, and informed management processes that provide for infrastructure that reliably meets or exceeds broad Laboratory expectations, at an acceptably low cost.

2.1.4.1 Stewardship Index – weighted index of the following measures (no single index will exceed a value of 1.0; i.e., values greater than 1.0 will rounded down to 1.0). Stewardship Index = sum of the individual indexes times their weighting factor.

Measure	Description	Desired Level of Performance	How is Index Calculated?	Weighting
Maintenance Investment Index (MII)	Actual Maintenance Costs as a percentage of RPV	Maintenance Investment Index at or above 2.5%	MII / 2.5%	40%
Facility Reliability Index (FRI)	[Modified Business Volume (BV) - Program Losses] x 100/Modified BV	99.95%	Actual FRI / 99.95%	30%
Energy Reinvestment Index (ERI)	Percent of annual energy costs reinvested towards energy conservation and efficiency	10%	Actual ERI / 10%	15%
Occupant Satisfaction – Image Index (II)	Annual survey of occupant satisfaction with facility condition and services	3.60	Actual Occupant Satisfaction / 3.60	15%

The weight of this sub-indicator is 60%.

Description: The appropriate level of maintenance and repair expenditures for facilities can be influenced by many factors, including size and complexity; types of finishes; current age and condition; mechanical and electrical system technologies; historic or community value; types or occupants or users; climate; criticality of role or function; labor, energy, and material process; and distances between buildings in inventory (NRC, 1990). An effective program for facilities maintenance and repair employs a combination of strategies and approaches. This sub-indicator is intended to be a measure of the Contractor's effectiveness at optimizing the life of facilities through adequate and timely maintenance and repairs. It includes a measure of the year-to-year investment in maintenance and repairs (MII), a measure of facility reliability (FRI), which is tied to programmatic impact (economic) resulting from service interruptions; and a measure of energy reinvestment (ERI), which establishes an accountability reference of energy stewardship and reflects comprehensive institutional planning with regards to overall energy efficiency planning. Finally, by measuring occupant satisfaction (II), one can assess how well the appearance of buildings and grounds are in keeping with surrounding community and stated image of the institution. The goal is to keep annual investments above 2.5% (MII) with minimal interruptions in service (ERI = 99.95%). Investment in energy conservation should be adequate to keep up with rising energy costs (10% annually), and occupant satisfaction should stay above 3.6 on a scale of 5 (mostly satisfied category).

Definitions:
Annual actual maintenance is as defined in FIMS and calculated using FIMS report 117 for SC facilities.

RPV is calculated using guidance from the Office of the Chief Financial Officer and is updated annually.

Occupant losses are defined by program interruptions that had a financial impact (total or partial loss of continuity of research; i.e., no alternatives available to replace lost time or data) as a result of an unplanned outage of facility services caused by a failed infrastructure system or component within the purview of the Contractor facilities organization. A program is financially impacted if the dollar loss meets the threshold for value-based reporting in the Event Reporting Criteria (7A) or management has determined that a number of smaller losses have occurred that individually may not meet the threshold, but collectively are deemed worthy of reporting under 10A.

The occupant satisfaction survey is conducted by the Contractor as part of its participation in the Facility Issues Annual Benchmarking survey.

Energy reinvestment is the annual expenditure for energy conservation and efficiency efforts as compared to the total annual energy expenditures regardless of color of money. This includes the use of funds outside of DOE (e.g., Battelle, Third Party, or BPA).

Assumptions: Definition and method for calculating RPV, and annual actual maintenance will remain unchanged. The Maintenance Investment Index will be calculated for SC facilities excluding those facilities scheduled for accelerated cleanup. Providing for this exclusion allows for management to make investments in those facilities essential to the long-term mission of the Laboratory and not be arbitrarily driven to make investments in facilities without a future mission. The Contractor will track performance of other facilities (SC-ACP, EM and Battelle private) through its performance management program. Performance against this indicator is dependent upon authorized funding for FY2003.

Performance Evaluation:

Outstanding: Stewardship Index of .98 or better

Excellent: Stewardship Index in the range of .95-.979

Good: Stewardship Index in the range of .90-.949

Marginal: Stewardship Index in the range of .85-.89

Unsatisfactory: Stewardship Index is less than .85

2.1.4.2 Identification and implementation of energy conservation measures that are commensurate with the Laboratory's strategy to establish a sustainable environment for conducting research and development

The weight of this sub-indicator is 40%.

Description: A well-planned and documented energy program is critical to identifying energy conservation measures that achieve continuous and life cycle cost effective improvements to increase the energy efficiency and effective management of energy and water within Laboratory facilities while increasing the use of clean energy sources. This indicator evaluates the Contractor's ability to identify and implement energy conservation measures that meet DOE Energy goals.

Definitions: None

Assumptions:
1) DOE Energy goals will remain the same.
2) No major programmatic loads added that impacts performance for milestone two.

Measures of progress:
1) Acquisition of at least 4% environmentally preferred power for Laboratory (consolidated laboratory) facilities.
   - Milestone Date – On or before March 31, 2003

2) Energy use reductions per square foot for the Laboratory (DOE and Battelle owned and leased) facilities in the Buildings Category (EMS4) show continuous improvement of at least 2% from previous year.
   - Milestone Date – September 30, 2003; report date – November 15, 2003

3) Showcase a wireless technology application in building/energy systems controls.
   - Milestone Date – On or before June 30, 2003

4) Qualify one office building for the Energy Star label.
   - Milestone Date – On or before September 30, 2003

5) Complete at least one energy audit of a major Laboratory facility.
   - Milestone Date – On or before June 30, 2003

6) Complete BPA funded project to perform energy upgrades to the 329 and 331 facilities. Proposed improvements include the installation of utility metering and reporting and conversion of hot water heat and humidifiers from electricity to natural gas.
   - Milestone Date – On or before July 31, 2003

7) Complete ESPC Phase II to reduce energy consumption for the Battelle campus facilities. Proposed improvements will include the installation of lighting controls, perimeter heating unit controls, variable air volume control of fume hoods, and reconfiguring supply fans per the project plan.
   - Milestone Date – On or before September 30, 2003

Performance Evaluation:

Outstanding: Met at least 6 of 7 Milestones

Excellent: Met 5 of 7 Milestones

Good: Met 4 of 7 Milestones

Marginal: Met at least 3 of 7 Milestones

Unsatisfactory: Did not meet any of the milestones on the identified objectives or progress is achieved at the detriment to overall goals and mission of the Laboratory.

2.2 Maintain and enhance Laboratory capabilities/infrastructure to meet current and future mission needs

The weight of this objective is 25%.

Battelle and DOE recognize that they need to work together so that the Laboratory has the capabilities required to meet the Department's current and future mission needs. The purpose of the indicators under this objective is to track the Contractor's progress in meeting the milestones identified within key Contractor plans, which are important in ensuring the current and future needs of the Laboratory are met.

2.2.1 Enhance the capability of EMSL to support the scientific user community

The weight of this indicator is 25%.

2.2.1.1 Develop facility and capability activities for effective operation of the 900 MHz magnet.

The weight of this sub-indicator is 50%.

Description: This sub-indicator addresses facility and capability development activities that the Laboratory can control and that will be required for ultimate, effective 900 MHz magnet operation. It does not address the 900 MHz NMR installation/readiness specifically since the magnet is not yet owned, nor controlled, by the Laboratory.

Definitions: None.

Measures of progress:

There are two specific outcomes that will be used to measure this sub-indicator. Each of these outcomes has three specific milestones.

Outcome 1: Design, build, and implement an efficient and capacity-compatible He cryogen recovery and liquefaction system for the EMSL 900 MHz NMR magnet system.

- Milestone 1 - Complete design by 2/1/03, commence procurements & engineering
- Milestone 2 - Modify existing recovery system by 6/1/03
- Milestone 3 - Start actual recovery by 9/30/03

Outcome 2: Design and build unique, special-purpose 900 MHz NMR probes (either triple-resonance probe or cryo-cooled probe) for use with EMSL user and/or grand-challenge scientific research activities.

- Milestone 4 - Design and build a probe by 2/1/03
- Milestone 5 - Test and use one probe by 6/30/03
- Milestone 6 - Use results in a proposal to DOE by 9/30/03, or publish technical results in peer-reviewed literature

Assumptions: Performance against this sub-indicator is dependent upon authorized funding. Performance against milestone 6 is dependent on the 900 MHz magnet being operational and available to the Laboratory for use.

Performance Evaluation:

Outstanding: Met 6 milestones

Excellent: Met 5 of 6 milestones

Good: Met 4 of 6 milestones

Marginal: Met 3 of 6 milestones

Unsatisfactory: Met 0-2 of 6 milestones

2.2.1.2 Enhance the Environmental Molecular Sciences Laboratories ability to meet its users and DOE's computational challenges by installing the HP supercomputer.

The weight of this sub-indicator is 50%.

Description**:** PNNL has contracted with the Hewlett-Packard Corporation to install a $24.5 M supercomputer based on Linux, the Quadrics interconnect, and 950 dual-processor nodes using the Intel Itanium 2 processor. When installation is complete the system is expected to deliver a theoretical peak performance of 11.4×10^{12} Floating Point Operations per Second, and rank as one of the most powerful computers on the planet. The system will be installed in two phases. The project requires operations to be moved to the first Phase of the HP supercomputer so the current IBM supercomputer can be removed to make room for the second phase of the HP supercomputer. PNNL is also performing extensive facility modifications, including electrical mechanical and architectural, in order to properly support the HP Supercomputer.

Definitions:
Full Phase 1 Installation: Phase1 consists of 256 Intel Itanium 2 processors and has a peak theoretical performance of 1×10^{12} Floating Point Operations per Second.
Initial Phase 2 Installation: Phase2 consists of an additional 1500 Intel Itanium 2 processors and has a peak theoretical performance of 6×10^{12} Floating Point Operations per Second.
Facility Modifications: In order to support the Phase2 and Phase2 Upgrade system the Molecular Science Computing Facility (MSCF) in the EMSL will require facility modifications. These include the installation of a 2nd Uninterruptible Power Supply (UPS), 5 additional air handlers and the supporting infrastructure for these additions.

Assumptions**:** PNNL receives sufficient funding in a timely manner for staffing and continued lease payment for the HP supercomputer. The HP supercomputer is made up of leading edge equipment and the system integration project plan is run by HP. It is assumed HP hardware will deliver the hardware based on the agreed to schedule.

Performance Evaluation**:**

Outstanding: 1) Bring the Phase 1 HP Supercomputer to full operational status and migrate operations off the IBM system such that the IBM can be shutdown by December 31, 2002.
2) Finish the facilities modifications, and bring the additional Phase 2 HP Supercomputer to full operational status by July 30, 2003.

Excellent: 1) Bring the Phase 1 HP Supercomputer to full operational status and migrate operations off the IBM system such that the IBM can be shutdown by January 31, 2003.
2) Finish the facilities modifications, and bring the additional Phase 2 HP Supercomputer to full operational status by August 30, 2003.

Good: 1) Bring the Phase 1 HP Supercomputer to full operational status and migrate operations off the IBM system such that the IBM can be shutdown by February 28, 2003.
2) Finish the facilities modifications, and bring the additional Phase 2 HP Supercomputer to full operational status by September 30, 2003.

Marginal: 1) Bring the Phase 1 HP Supercomputer to operational status by May 30th, 2003 leaving the IBM onsite.
2) Finish the facilities modifications, and initiate operations on the additional Phase 2 HP Supercomputer.

Unsatisfactory: 1) Phase 1 HP Supercomputer not brought up to operational status during FY2003.
2) Phase2 supercomputer did not initiate operations in FY2003.

2.2.2 Establish Systems Biology and Computational capabilities required to realize PNNL 2010 strategy

The weight of this indicator is 25%.

2.2.2.1 Establish an operating pilot proteomics facility in LSL II

The weight of this sub-indicator is 50%.

Description: The Laboratory's strategic success in achieving the 2010 vision of a world-class systems biology program and facilities is based on successful development and demonstration of smaller individual projects and pilots. An important one is the establishment of an operating pilot proteomics facility. In FY2002, LSL II lab space was renovated to provide the ability for this. In FY2003, the following will occur:

1) Research equipment will be obtained, installed, and made operational in this space
2) Staff will be relocated and become operational in these labs
3) Facility will become an operating and productive pilot proteomics facility.

An operational and productive pilot proteomics facility will be able to demonstrate the integration of the component processes necessary for compositional characterization of protein complexes (molecular machines) as exemplified in the DOE's Genomes to Life (GTL) Program Goal One Project. The component processes include: 1) the ability to generate affinity reagents; 2) the ability to isolate protein complexes selectively; and 3) the ability to identify the protein constituents by mass spectrometric analysis.

Definition: A pilot proteomics facility ready for operations is defined as having the key research equipment installed, tested, and operating, and the essential staff in place ready for productive operations.

A facility is operational and productive when the following component processes are addressed:

1) Affinity reagents encompass any mechanism for specifically separating a given protein complex from other cellular constituents. Affinity reagents may be synthetic antibodies (scFv or FaB fragments), or recombinant proteins containing an affinity tag suitable for biochemical or immunological purification.

2) Protein complexes are associations of proteins required for the execution of specific cellular functions. They may be stable structures composed of tightly bound, constitutively present proteins such as ribosomes or cytochromes, or they may be dynamic, more transient structures associated with transcriptional regulation or signal transduction. A given protein complex is specified by the presence of an identified gene product.

3) Protein identification is defined as the use of mass spectrometric techniques together with accurate mass tags, partial amino acid sequence data, or peptide mass data to infer the identity of the parent protein. A complex is characterized when the major protein constituents have been identified.

Assumptions: In order to complete the research equipment in this lab space, new FY2003 GTL capital funding needs to be authorized. With the current FY2003 Continuing Resolution (CR) budget, no new funding has yet been authorized. This GTL authorization needs to occur no later than January 2003, in order to purchase, receive, and install the remaining research equipment necessary to result in an operating pilot proteomics facility by the end of FY2003. *The ability to achieve more than 4 complexes (which in of itself will be a stretch utilizing existing equipment) is dependent upon the procurement, receipt, and installation of the additional research equipment. If the CR is not resolved by January 31, 2003, PNNL will initiate a formal change control request as previously discussed, and agreed to with the assigned DOE/AMT POC for this sub-indicator.*

Performance Evaluation: PNNL will provide DOE-RL a report/output from its laboratory information management system (LIMS) by the end of FY2003 that demonstrates the operational performance of the pilot proteomics facility as shown by the number of complexes characterized. Performance will be based on the following:

Outstanding:	Facility operational and 10 or more complexes characterized
Excellent:	Facility operational and 3 to 9 complexes characterized
Good:	Facility operational and 1 or 2 complexes characterized
Marginal:	Facility ready for operations and 0 complexes characterized
Unsatisfactory:	Facility not ready for operations

2.2.2.2 Provide adequate capability to meet the Computational Science needs across major PNNL research areas

The weight of this sub-indicator is 50%.

Description: The Laboratory's major research mission areas require facilities and computational resources (equipment and staff) to achieve world-class results. In FY2003, the following will occur:

1. A written assessment and requirements document will be developed that summarizes the comprehensive computational needs (facilities, people, equipment and computational resources) across the major mission areas of the Laboratory; biology, climate, subsurface/environmental, engineering, and chemistry.
2. Next generation computing resource will be procured, installed, and made operational for use across the labs computational research programs.
3. Hire a Division Director for Computational Sciences & Applied Math

Higher performance computational science application development is becoming more common across PNNL's various scientific disciplines, and demonstrated computational expertise and capabilities are often the discriminator when scientific research proposals compete for funding. An assessment will be performed that captures the needs of the major scientific mission areas for PNNL, identifies gaps in facilities, staff, computing resources, and provides implementation recommendations. Computational resources are currently being utilized through an aging computer called "Colony". This resource is scheduled for replacement in FY2003 with a more current architecture machine. This replacement computer will be made available through an internal proposal/review process to provide compute cycles to major research areas across the lab; including subsurface modeling, biology, engineering, climate modeling, chemistry, homeland security, and other mission critical areas.

PNNL is searching for a person to lead the computational efforts for the lab, and perform the duties of Director of Computational Sciences & Applied Math. This person would also be the lab's liaison to DOE's Advanced Scientific Computational Research office; and provide leadership across the complex in the area of computational sciences research.

Definition: Computational sciences supporting research domains are those that typically require innovative applications and parallel processor based systems to accomplish modeling, simulation, and analysis of complex scientific and engineering systems/processes.

Assumptions: In order to deliver the assessment/requirements document, funding would need to be identified from the Computational Sciences & Engineering Initiative, and/or supplemental funding from overhead sources to accomplish this deliverable. Capital GRE funding would need to be approved for the purchase of a "Colony" replacement; work is underway to secure this funding.

Performance Evaluation: Completion of the following actions will be used to evaluate the Contractor's performance against this indicator.

1. PNNL will present to DOE AMT an assessment and requirements report that captures the gaps necessary to fill computational sciences needs in support of the major research missions for DOE and PNNL. Delivery 3rd quarter of FY2003.
2. Successful procurement, installation, and acceptance of a computational high performance cluster computer to include at least 0.3 teraflops of peak processing power, a high performance communications fabric, Linux, and associated development software. This system will be accepted and available for full use by researchers across PNNL by end of FY2003.
3. Successful selection and hiring of a Director of Computational Sciences by 3rd quarter of FY2003.

Performance will be based on the following:

Outstanding: Completion of all 3 above deliverables

Excellent: Completion of 2 of 3 above deliverables

Good: Completion of 1 of 3 above deliverables

Marginal: Progress but none of the above deliverables completed

Unsatisfactory: No progress on deliverables

2.2.3 Align the Laboratory's nuclear science capabilities with future DOE mission needs

The weight of this indicator is 25%.

2.2.3.1 Identify and implement measures that are commensurate with the Laboratory's strategy to consolidate and sustain radiological and radiochemical capabilities.

The weight of this sub-indicator is 50%.

Description: PNNL has a rich history of significant contributions to national and international advances in nuclear science and technology. Today its substantial nuclear capability is available for deployment in the critical areas of the nuclear legacy; the threat of nuclear, chemical, and biological weapons proliferation; and energy generation. To retain nuclear science and technology as part of PNNL's multi-program signature, facility and staff capabilities must be sustained and new talent recruited and developed.

Measures of Progress:

Prepare a PNNL Integrated Nuclear Strategy document for review by the PNNL Management Council and for discussion with RL and other DOE offices as appropriate. As part of this strategy, PNNL's long-term needs for radiological and radiochemical capabilities will be identified.

- Milestone date – March 30, 2003

Prepare documents similar to a Critical Decision 0 submittal (i.e., mission justification), which specify facility capabilities required to implement PNNL's Integrated Nuclear Strategy.

- Milestone date – September 30, 2003

Prepare a SWOT-like (strengths, weakness, opportunities, and threat) document identifying key staff strengths and weaknesses by discipline in support of the implementation of the Integrated Nuclear Strategy. This staff-needs document will be the basis for FY2004 and out-year hiring and/or retraining actions.

- Milestone date - September 30, 2003

Assumptions: The Management Council's decision on the Laboratory's Integrated Nuclear Strategy could generate the need for change control for these milestones. The SWOT document will address both staff capabilities not currently available at the Laboratory and those capabilities that the Laboratory is in danger of losing through attrition.

Performance Evaluation:

Outstanding:	Three milestones completed and Management Council path forward decision established
Excellent:	Three milestones completed
Good:	Two milestones completed
Marginal:	One milestone completed
Unsatisfactory:	No milestones completed

2.2.3.2 Establish new, joint research and development projects with academia, using PNNL's nuclear capabilities, which will provide opportunities to develop and recruit future nuclear scientists and engineers.

The weight of this sub-indicator is 50%.

Description: This sub-indicator will measure the ability of the Contractor to increase development opportunities for future nuclear researchers and engineers through collaborations with academia on R&D projects.

The Contractor will establish, in cooperation with the Western Nuclear Sciences Alliance and/or other academic organizations as appropriate, new R&D projects in which PNNL and university-based nuclear capabilities will be used in collaboration. These projects will utilize students who are interested in seeking careers in nuclear science and engineering.

Definitions: The Western Nuclear Sciences Alliance includes the following four universities: Oregon State University, Washington State University, University of California-Davis, and University of California-Berkeley. PNNL collaborated on the Alliance's successful proposal under DOE-NE's new Innovations in Nuclear Infrastructure and Education Program. PNNL also collaborates in nuclear science and technology R&D with several other universities nation-wide.

Assumptions: None.

Performance Evaluation:

Outstanding:	Four or more joint R&D projects established or four or more student positions created
Excellent:	Three joint R&D projects established or three student positions created
Good:	Two joint R&D projects established or two students position created
Marginal:	One joint R&D project established or one student position created
Unsatisfactory:	No joint R&D projects established

2.2.4 Identify and provide cross cutting physical and supporting infrastructure capabilities consistent with PNNL 2010 strategy

The weight of this indicator is 25%.

2.2.4.1 Increase internet connection to accommodate strategic research collaborations requiring extensive computation and transfer of large data sets.

The weight of this sub-indicator is 20%.

Description: This indicator measures Battelle's ability to provide the networking bandwidth (capacity and performance) required to interact with research data sets and computational requirements of increasing complexity and size with wide geographic dispersion. The indicator measures the progress towards strategic objectives related to the PNNL 2010 strategy and the PNNL IT Infrastructure Strategic Plan - FY 2002-06.

Definitions:

Tri-Cities inter-network exchange: Tri-Cities regional "meet-me" to provide network interconnection and peering for Internet Service Providers (ISP) and local businesses to exchange regionally based Internet Protocol (IP) traffic.

OCx: A high-speed optical carrier network connection, provided and supported by a contracted telecommunications or internetworking vendor. OC12 is an abbreviation for Optical Carrier 12, a 622 Mbps (megabits per second) circuit. OC48 is an Optical Carrier 48 circuit of 2.5 Gbps (gigabits per second) capacity. The existing OC3 circuit's capacity is 156 Mbps.

Pacific Northwest Gigapop: The Pacific Northwest's access point to the nation's leading edge, high-bandwidth, next-generation Internet networks including Internet2/Abilene, high-performance Federal nets, and high-performance commodity Internet offerings.

ESnet: The Energy Sciences Network (ESnet) is a high-speed network serving Department of Energy scientists and collaborators worldwide. ESnet provides direct connections to all major DOE sites and to more than 100 other networks. ESnet is funded by the DOE Office of Science to provide network and collaboration services in support of the agency's research missions.

Measures of progress:

1. Establish high-speed connection (1.0 Gbps) to the Tri-Cities inter-network exchange.
   - Milestone Date – On or before January 31, 2003

2. Enhance the PNNL Internet routers, firewalls, and border network to support OC12 Internet PNNL network.
   - Milestone Date – On or before March 31, 2003

3. Increase the Internet connection to the Pacific Northwest Gigapop (Seattle) from OC3 to OC12 to support regional research collaborations.
   - Milestone Date – On or before June 30, 2003

4. Deploy 540 additional Gigabit Ethernet ports for connecting high-end workstation and servers to the PNNL network. This more than doubles the number of Gigabit Ethernet ports, bringing the total to 900.
   - Milestone Date – On or before August 30, 2003

5. Increase the Internet connection between the Pacific Northwest Gigapop and ESnet from OC3 to OC12 to support research collaborations with other DOE Office of Science laboratories.
   - Milestone Date – On or before September 30, 2003

6. Implement higher bandwidth Internet backup path capable of supporting at least 10 Mbps (current backup path is T1 or 1.54 Mbps).
   - Milestone Date – On or before September 30, 2003

Assumptions: FY2003 continuing resolution constraints on GPE capital equipment funding are eliminated by February 1, 2003

Performance Evaluation:

Outstanding: Met at least 5 of 6 Milestones

Excellent: Met 4 of 6 Milestones

Good: Met 3 of 6 Milestones

Marginal: Met 2 of 6 Milestones

Unsatisfactory: Met less than 2 of 6 Milestones

2.2.4.2 Increase computer network capability to accommodate strategic classified research collaborations requiring extensive computation and transfer of large data sets.

The weight of this sub-indicator is 20%.

Description: This indicator measures Battelle's ability to provide the IT intra- and internetworking connectivity required to facilitate classified computing and data transfer with classified computing resources and networks. The indicator measures the progress towards objectives related to research requirements and the PNNL IT Infrastructure Strategic Plan - FY 2002-06.

Definitions: Limited Area: A security area or facility used for the protection and/or use of classified matter and/or Category III quantities of special nuclear material where trained staff or other internal security measures provide means to control access and prevent inadvertent or deliberate access by authorized persons.

Measures of progress:

1. Conduct a comprehensive analysis of PNNL classified computer networking and computing requirements. Prepare a recommendation and business model to address those needs for incorporation into the PNNL IT Strategic Plan for FY 2004-2008.
   - Milestone Date – On or before June 30, 2003

2. Implement classified network connectivity to SIPRNET into the NSB Limited Area or other single demarcation point.
   - Milestone Date – On or before September 30, 2003

3. Provide classified networking and computing requirements for the design of the new multi-program research laboratory.
   - Milestone Date – On or before September 30, 2003

4. Implement appropriate classified network connectivity between the 3760 building and the NSB Limited Area.
   - Milestone Date – On or before September 30, 2003

5. Provide network access to one or more high-performance classified computing resources.
   - Milestone Date – On or before September 30, 2003

Assumptions: Stable programmatic drivers and funding for items 2, 4 and 5.

Performance Evaluation:

Outstanding: Met at least 4 of 5 Milestones

Excellent: Met 3 of 5 Milestones

Good: Met 2 of 5 Milestones

Marginal: Met 1 of 5 Milestones

Unsatisfactory: Met 0 of 5 Milestones

2.2.4.3 Develop and commence implementation of a strategy to maintain continuity of the Department Of Energy science mission while enabling accelerated cleanup of the Hanford 300 Area.

The weight of this sub-indicator is 60%.

Description: The current DOE initiative to accelerate the Hanford cleanup schedule indicates significant cost savings can be achieved by reducing the life-cycle cleanup costs associated with the legacy facilities, including reductions in surveillance and maintenance costs of deactivated

facilities. Supporting this initiative provides a challenge for the Laboratory to ensure that science and technology mission objectives are met, and critical capabilities are not lost during the transition out of the legacy facilities. This indicator measures progress toward development and implementation of a DOE supported strategy for retention of critical science and technology capabilities and relocation from facilities within the cleanup zone to new facilities central to the main campus. This is a multi-year indicator, and progress on this measure will be supported through the accomplishment of the following tasks:

Definitions: Cheap to Keep – Facility is vacated, removed from the billable space system, and transferred to the surplus facilities building manager. Waste materials are containerized or as appropriate removed for disposal, all non-essential utilities are isolated and the facility is placed under routine surveillance and maintenance controls with appropriate postings identifying points of contact and access restrictions.

Measures of progress:

1. Develop and provide to the Department of Energy a white paper articulating the strategy for maintaining continuity of the science mission while supporting the accelerated cleanup. The paper should include impacts, divestitures, replacement needs, and financing options as requested by the Office of Science at the FY2002 PNNL On-Site review.
    - Milestone Date - On or before December 20, 2002

2. Conduct an engineering study of utility infrastructure requirements necessary to support the 300 Area transition strategy. The study will contain sufficient detail to provide a basis for continuity of operations decisions during transition, a recommended final utility configuration, and a more detailed cost estimate than currently available.
    - Milestone Date - On or before August 1, 2003

3. Consolidate staff and capabilities from the Environmental Sciences Laboratory (Building 3720) to the Radiochemical Processing Laboratory (Building 325) to prepare for shutdown of 3720 in support of the 300 Area transition strategy.
    - Milestone Date - On or before September 30, 2003

4. Complete an evaluation of alternatives for managing PNNL's hazardous and radioactive wastes and issue an implementation plan for closing the 305B facility in support of the 300 Area transition strategy.
    - Milestone date - On or before August 1, 2003

5. Place two PNNL operated 300 Area facilities (3718S & 332) in "Cheap to Keep" closure awaiting transfer to the River Corridor Cleanup Contractor in support of the 300 Area transition strategy.
    - Milestone date - On or before September 30, 2003

Assumptions:

1. FY2003 continuing resolution constraints on new construction starts are eliminated by February 1, 2003
2. PNNL is successful in working with DOE-SC and other stakeholders to gain support for and finalize the strategy by April 1, 2003.
3. DOE supports RPL capital upgrades needed to consolidate EM mission work.
4. Change Control will be performed as required to this measure to reflect enhancements made to the strategy as it is being finalized with stakeholders.

Performance Evaluation:

Outstanding: Met 5 of 5 milestones

Excellent: Met 4 of 5 milestones

Good: Met 3 of 5 milestones

Marginal: Met 2 of 5 milestones

Unsatisfactory: Met 1 of 5 milestones

2.3 Provide integrated management systems that enable effective and efficient business performance

The weight of this Objective is 25%

2.3.1 Progress against selected improvement initiatives on the Laboratory's "Operations Improvement Agenda."

The weight of this indicator is 100%.

Description: The Operations Improvement Agenda is tracked as part of the overall "Laboratory Agenda" and includes key Laboratory-level Operations Improvement Initiatives (OIIs) as well as selected projects sponsored by individual management systems. All of the efforts are designed to increase the efficiency and effectiveness of laboratory management systems. This indicator measures Battelle's ability to provide integrated management systems that enable effective and efficient business performance within the Laboratory. The indicator measures the progress towards selected strategic objectives identified during the Laboratory's business planning process. The following objectives and their corresponding milestones shall be utilized to measure progress in FY2003:

Measures of progress:

Institutionalize IOPS – Objective: To export the Integrated Operations System (IOPS) concepts and tools to Sequim thus completing a multi-year effort to deploy IOPS to all PNNL's lab-intensive facilities in order to better establish and communicate safe laboratory practices, identify and control workspace hazards, identify and obtain appropriate training, and authorize access to workspaces for an efficient and productive laboratory.

- Milestone Date – Complete IOPS implementation at Sequim on or before September 30, 2003

Hazards Analysis – Objective: to Integrate and enhance existing Hazard Analysis tools (and consider whether additional tools are needed) to assure the consistent and effective identification, evaluation, and mitigation of hazards; including an efficient work start-up authorization process based on an approved Hazard Analysis and consistent with PNNL R2A2s.

- Milestone Date – The revised EPR system will be rolled out to the Laboratory on or before May 31, 2003

Radiological Material Tracking System – Objective: Enhance and implement laboratory-wide the Radiological Material Tracking System to provide integration of requirements so that key stakeholders will have the ability to perform real-time checking to ensure compliance with Facility Use Agreement (FUA) operating boundaries for radioactive materials.

- Milestone Date – A Revised Radiological Material Tracking System will be rolled out to the RPL before September 30, 2003

Proposal Pricing System (PPS) – Objective: Develop and implement a new Proposal Pricing system, which will streamline the process and tools associated with proposal pricing.

- Milestone Date – The new Proposal Pricing System will be rolled out to current PPS users and made generally available to the Laboratory on or before March 30, 2003

PNNL Work Authorization Action Plan - Objective: To Implement corrective actions and improvements related to authorization of work and funds control.

- Milestone Date – Submit to DOE, PNNL's Work Authorization process document - December. 30, 2002
- Milestone Date – Re-Implement Record of Decision for DOE Order 412.1 on or before December 30, 2002
- Milestone Date – Revise authorization and overrun SBMS subject areas consistent with DOE O 412.1 on or before December 31, 2002

Improve Implementation of the Customer Service Model – Objective: To improve the implementation of the Customer Service Model.

- Milestone Date – The Laboratory Dashboard will include performance indicators for each of the three core processes on or before September 30, 2003

Minimum Contract Performance Requirements – Objective: To improve the clarity and objectiveness associated with contract fee adjustments.

- Milestone Date – Develop and submit proposed contract modification that specifically defines the minimum performance expectations as a replacement to DEAR 970.5215-3, *Conditional payment of fee, profit, or incentives,* on or before June 30, 2003

Assumptions: These milestones assume the availability of the required funding and other key resources identified in the project plans for each initiative.

Performance Evaluation:

Outstanding:	Met at least 8 of 9 Milestones
Excellent:	Met 7 of 9 Milestones
Good:	Met 6 of 9 Milestones
Marginal:	Met 5 of 9 Milestones
Unsatisfactory:	Met less than 5 Milestones

ELEMENT	Adjectival Rating	Value Points	Indicator Weight	Total Points	Objective Weight	Total Points
2.0 Management and Operational Excellence						
2.1 Provide management and operational excellence in achieving key contract performance requirements						
2.1.1 Provide ESH&Q management systems that sustain and enhance Laboratory operations			25%			
2.1.2 Performance against business management sub-indicators (roll up from Table 2.2)			25%			
2.1.3 Sustain and enhance the effectiveness of Integrated Safeguards and Security			25%			
2.1.4 Provide management and operational excellence in achieving adequate investment in maintenance and energy conservation efforts (roll up from Table 2.3)			25%			
			Objective 2.1 Total		50%	
2.2 Maintain and enhance Laboratory capabilities/ infrastructure to meet current and future mission needs						
2.2.1 Enhance the capability of EMSL to support the scientific user community (roll up from Table 2.4)			25%			
2.2.2 Establish Systems Biology and Computational capabilities required to realize PNNL 2010 strategy (roll up from Table 2.5)			25%			
2.2.3 Align the Laboratory's nuclear science capabilities with future DOE mission needs (roll up from Table 2.6)			25%			
2.2.4 Identify and provide cross cutting physical and supporting infrastructure capabilities consistent with PNNL 2010 strategy (roll up from Table 2.7)			25%			
			Objective 2.2 Total		25%	
2.3 Provide integrated management systems that enable effective and efficient business performance						
2.3.1 Progress against selected improvement initiatives on the Laboratory's "Operations Improvement Agenda."			100%			
			Objective 2.3 Total		25%	
					Critical Outcome 2.0 Total	

Table 2.1. Management and Operational Excellence Critical Outcome Performance Rating Development

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
2.1.2 Performance against Business Management sub-indicators					
2.1.2.1 Cost Management Trends: Overhead cost as a percent of Laboratory's 1830 fully-burdened average charge-out rate			50%		
2.1.2.2 Cost Management Trends: Labor Overhead as a multiplier on the 1830 direct charged operating labor costs			25%		
2.1.2.3 Resource Management Trends: Direct FTEs as a percent of the total Laboratory FTEs			25%		
				Indicator 2.1.2 Total	

Table 2.2. Performance Indicator 2.1.2 Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
2.1.4 Provide management and operational excellence in achieving investment in maintenance and energy conservation efforts					
2.1.4.1 Stewardship Index			60%		
2.1.4.2 Identification and implementation of energy conservation measures that are commensurate with the Laboratory's strategy to establish a sustainable environment for conducting research and development			40%		
				Indicator 2.1.4 Total	

Table 2.3. Performance Indicator 2.1.4 Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
2.2.1 Enhance the capability of EMSL to support the scientific user community					
2.2.1.1 Develop facility and capability activities for effective operation of the 900 MHz magnet.			50%		
2.2.1.2 Enhance the Environmental Molecular Sciences Laboratories ability to meet its users and DOE's computational challenges by installing the HP supercomputer.			50%		
				Indicator 2.2.1 Total	

Table 2.4. Performance Indicator 2.2.1 Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
2.2.2 Establish Systems Biology and Computational capabilities required to realize PNNL 2010 strategy					
2.2.2.1 Establish an operating pilot proteomics facility in LSL-II			50%		
2.2.2.2 Provide adequate capability to meet the Computational Science needs across major PNNL research areas			50%		
				Indicator 2.2.2 Total	

Table 2.5. Performance Indicator 2.2.2 Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
2.2.3 Align the Laboratory's nuclear science capabilities with future DOE mission needs					
2.2.3.1 Identify and implement measures that are commensurate with the Laboratory's strategy to consolidate and sustain radiological and radiochemical capabilities			50%		
2.2.3.2 Establish new, joint research and development projects with academia, using PNNL's nuclear capabilities, which will provide opportunities to develop and recruit future nuclear scientists and engineers.			50%		
				Indicator 2.2.3 Total	

Table 2.6. Performance Indicator 2.2.3 Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
2.2.4 Identify and provide cross cutting physical and supporting infrastructure capabilities consistent with PNNL 2010 strategy					
2.2.4.1 Increase internet connection to accommodate strategic research collaborations requiring extensive computation and transfer of large data sets			20%		
2.2.4.2 Increase computer network capability to accommodate strategic classified research collaborations requiring extensive computation and transfer of large data sets			20%		
2.2.4.3 Develop and commence implementation of a strategy to maintain continuity of the Department Of Energy science mission while enabling accelerated cleanup of the Hanford 300 Area.			60%		
				Indicator 2.2.4 Total	

Table 2.7. Performance Indicator 2.2.4 Score Calculation

Total Score	4.0 - 3.5	3.4 - 2.5	2.4 - 1.5	1.4 - 0.5	<0.5
Final Rating	Outstanding	Excellent	Good	Marginal	Unsatisfactory

Table 2.8. Operational Excellence Critical Outcome Final Rating

3.0 LEADERSHIP EXCELLENCE (15%)

Through Battelle's leadership and regional partnerships, PNNL will become recognized as an enduring local, regional and national asset.

The weight of this outcome is 15%.

The Leadership Excellence Critical Outcome shall measure the overall effectiveness/performance of the Contractor's programs to help establish a robust, sustainable, regional economy, and to attract, develop and retain critical staff necessary to achieve simultaneous excellence in science and technology, operations and community trust. It also measures the relevance of the Laboratory to economic and S&T needs of the region, along with the effectiveness/performance of the Contractor's K-20 education programs. Performance objectives and indicators to be utilized in the evaluation of the Leadership Excellence critical outcome have been developed in partnership with the appropriate DOE HQ, AMT, and RL counterparts and are listed below. These performance objectives and indicators identify significant activities/requirements important to the success of the Laboratory's business systems as identified by the Department and/or its customers. The reviewers (AMT, RL and/or HQ) as a primary means of determining the overall Leadership Excellence critical outcome performance rating shall utilize these objectives and indicators.

Each of the performance indicators has an associated metric that translates the level of performance to an adjectival rating. Scoring of the individual performance indicators is based on the point scheme identified within section I. The overall adjectival rating is then computed by multiplying the weight of each performance indicator and summing them all to develop an overall score for each objective. The score for each objective within the outcome is then computed in the same manner to arrive at an overall score for the outcome (see Table 3.1 at the end of this section). The overall value points earned are then compared to Table 3.4 to determine the overall adjectival rating.

Objectives and Performance Indicators:

3.1 Attract, develop and retain the critical staff necessary to achieve simultaneous excellence in S&T, operations, and community trust

The weight of this objective is 30%.

3.1.1 Identify PNNL "best in class" workgroups by examining staff engagement assessment scores and objective performance data. Utilize this data to develop best practices training programs and talent profiles

The weight of this indicator is 100%.

Description: The Laboratory's strategic success depends on leaders who can attract, motivate and retain staff members who are committed to the Laboratory's strategic objectives DOE critical outcomes. A baseline assessment process (BAP) for measuring leadership effectiveness in engaging and motivating staff toward outcomes is sought, as a planning and building block for achieving the Laboratory 2010 outcomes articulated by Battelle and DOE-RL leadership.

Definitions: A baseline assessment process is defined as the completion of a workplace quality scorecard for individual work units that have greater than 5 staff members, or greater than 5 staff members responding to the survey.

Assumptions: None

Performance Evaluation: Completion of the following actions will be used to evaluate the Contractor's performance against this indicator.

1. Conduct 50 Strengthfinder assessments for Technical Group Managers by December 31st, 2002.

2. Complete an analysis to define talent profiles for technical group managers (TGM) positions in PNNL Research Divisions by March 31st, 2003.

3. Complete an analysis to define productivity measures for Research Division workgroups.

4. Increase the Laboratory overall workplace engagement assessment GrandMean score in FY2003 by 0.09.

Outstanding: Completion of all 4 actions listed above

Excellent: Completion of 3 out of the 4 actions listed above

Good: Completion of 2 out of the 4 actions listed above

Marginal: Completion of 1 out of the 4 actions listed above

Unsatisfactory: Completion of none of the actions described above

3.2 Demonstrate the relevance of Pacific Northwest National Laboratory to the needs of the community and the region

The weight of this objective is 50%.

3.2.1 Support growth of the local and regional technology-based primary business sector

The weight of this indicator is 40%.

3.2.1.1 The number of new business and expansions in the local area where Battelle had a material role in their establishment

The weight of this sub-indicator is 30%.

Description: The number of new businesses in the local area, or business expansions, where the Contractor had a material role in their establishment through one or more of its economic development programs. These programs include the Entrepreneurial Support Program, the Technology Assistance Program (TAP), and the Targeted Support Program (TSP).

Definitions:

Technology-based: Business whose product fundamentally embodies new technology or whose operations are substantially improved by applying technology.

Primary business sector: Business whose revenues derive from sources outside the local area, and not Hanford cleanup related.

Material role in establishment: It is recognized that new businesses usually involve collaborative help from multiple participants. Likewise, business expansions often are made possible because of help from one or more entities. To receive credit regarding claims for this indicator, the Contractor is expected to provide material or substantive assistance that result in the success of a new business or expansion of an existing business.

For assistance to be determined to be material it must be deemed to have played a significant role in the startup or expansion claimed; i.e. without the assistance, success would have been more difficult and/or less likely. The following activities are examples of the kind of assistance that is expected (these are only examples; other kinds of assistance would also qualify):

- Entrepreneurial Support, such as in business plan development, licensing, leasing, or transfer of unused Government or PNNL property
- Technology assistance
- Technology and intellectual property demonstration and transfer support
- Support for marketing studies
- Capital investments or loans
- Leads for business relocation or expansion
- Responding to community economic entities requests for support for clients

For each new business or expansion claimed, the Contractor is to provide documentation delineating assistance provided (timeframe assistance occurred, types of assistance provided, and a detailed description of how assistance benefited the company). Additionally, any letters of attestation from businesses helped that state the opinion of the recipient as to the value of the assistance provided would be helpful.

For the assistance to be evaluated, verification of qualifying companies will occur via visits to the business(s) being claimed. The following criteria will be used as a basis for DOE's evaluation: (1) Required Business Plan, (2) Required Facilities/Equipment, (3) Management Team in Place, (4) Support Staff Hired, (5) Financing in Place, (7) Technology Protected, (8) License(s) in Place, (9) Product Status, and (10) Marketing and Sales.

Local Area: Includes the area within a 50-mile radius around PNNL.

Assumptions: The Laboratory will receive continuing funding (though 3161 is unlikely) for Entrepreneurial Support Program, TAP, and TSP.

Performance Evaluation:

Outstanding: 6 or more new or expanded businesses in the area where Battelle had a material role in their establishment

Excellent: 5 new or expanded businesses in the area where Battelle had a material role in their establishment

Good: 4 new or expanded businesses in the area where Battelle had a material role in their establishment

Marginal: 3 new or expanded businesses in the area where Battelle had a material role in their establishment

Unsatisfactory: less than 3 new or expanded businesses in the area where Battelle had a material role in their establishment

3.2.1.2 Effectiveness in providing technical assistance to local and regional firms

The weight of this sub-indicator is 35%.

Description: This indicator has been developed to track the effectiveness of the Laboratory's Technology Assistance Program in helping to diversify the regional economy. The evaluation will be subjective in nature and includes criteria in the following three areas: number of firms

assisted, quality of assistance provided, and overall rating provided by the sponsors. Based on the overall performance within each of the three areas identified above, the AMT and appropriate RL staff shall assign an overall subjective rating for this indicator.

Definitions:

- Regional firms - Regional firms are those located in the Pacific Northwest, which includes Washington, Idaho, Oregon.
- Local Area: Includes the area within a 50-mile radius around PNNL.

Evaluation Criteria: The following criteria shall be utilized in the evaluation of each of the four areas being utilized to evaluate this indicator:

- Number of Firms Assisted - The number of firms that have initiated technical assistance. Technical assistance is considered to be initiated after three events have occurred: 1) the firm has submitted a written request for assistance, 2) an assistance agreement has been signed by Battelle and the firm, and 3) funding has been allocated to a researcher to provide technical assistance. Technical Assistance is considered to have been provided after a client has accepted the technical services offered and the services have been used. Technical assistance can also take the form of a Laboratory-funded study done by graduate students at WSU Tri-Cities. This type of assistance is considered initiated after the students and the client have met to scope the study.

- Quality of Assistance – This factor is based upon a AMT-approved Battelle survey provided to all recipients of technical assistance projects. Information to be used comes from question #1 on the survey - *Overall, how would you rate the interaction process with PNNL?* and item #2, *Please rate the usefulness of the technical assistance provided by PNNL*. Satisfaction will be measured on a five point scale where:
  1 = Very Dissatisfied
  2 = Dissatisfied
  3 = Neutral
  4 = Satisfied
  5 = Very Satisfied

  The specific measurement for this factor will involve the percentage of recipients with a response of satisfied or very satisfied (4 and 5 of the 5-point scale).

- Rating by Sponsors – This factor will be based on the overall rating concerning the overall quality of work performed by the Technology Assistance Program and queried by the AMT. The quality will be measured on the standard adjectival ratings of Outstanding, Excellent, Good, Marginal, and Unsatisfactory, utilizing the adjectival rating definitions provided within Section I of this appendix.

Assumptions: At least 1600 staff-hours worth of direct and indirect funding for the Technology Assistance Program.

Performance Evaluation: Figure 3.1 below will be utilized by the DOE-RL reviewer(s) as guidance in the development of the overall subjective rating of Outstanding, Excellent, Good, Marginal, or Unsatisfactory.

Evaluation Factor	**Outstanding**	**Excellent**	**Good**	**Marginal**	**Unsatisfactory**
Number of Firms Assisted	40 or more	30 – 39	15 – 29	6 – 15	5 or less
Quality of Assistance	85% or greater	75% - 84%	60% - 74%	50% - 59%	49% or fewer
Rating by Sponsor	Outstanding	Excellent	Good	Marginal	Unsatisfactory

Figure 3.1

3.2.1.3 Develop and champion at least one new economic development initiative

The weight of this sub-indicator is 35%.

Description: One manifestation of the vitality of the Contractor's economic development efforts is that new approaches and initiatives for economic development are devised and pursued. In the absence of new approaches, there is danger that new opportunities will be missed because they don't fit the existing programs, or that the Contractor's economic development efforts will be taken for granted by stakeholders and therefore ignored, or that complacency will set in. This performance indicator is designed to assess the degree to which the Contractor is developing and implementing useful and effective new approaches for economic development. Past examples of new economic development initiatives include the Federal and State Technology Partnership Program proposal (FY2001), the Tri-Cities Venture Group (FY2000), the Technology Investor Forum (FY1998), the Targeted Support Program (FY1997), the SBIR Alerting Service (FY1997). The evaluation will be subjective in nature and includes criteria in the following five areas: number of new initiatives, degree of initiative implementation, fit with PNNL's economic development mission, observed immediate impact, and likelihood of future impact. Based on the overall performance within each of the five areas identified above, the AMT and appropriate RL staff shall assign an overall subjective rating for this indicator. It is possible, for example, to achieve an outstanding rating by implementing a single, large, impactful new initiative; or by developing several new initiatives with varying degrees of implementation and impact.

Definitions:
Economic Development Initiative: A new program, approach, offering, recurring event, or one-time event that is designed to accomplish PNNL's economic development mission to diversify the local economy.

Local Area: Includes the area within a 50-mile radius around PNNL.

Assumptions: Funding will be made available to implement new economic development initiatives as appropriate.

Performance Evaluation:

Figure 3.2 below will be utilized by the DOE-RL reviewer(s) as guidance in the development of the overall subjective rating of Outstanding, Excellent, Good, Marginal, or unsatisfactory.

Evaluation Factor	Outstanding	Excellent	Good	Marginal	Unsatisfactory
Number of New Initiatives	3 or more	2	1	1	0
Degree of Initiative Implementation	Fully funded and implemented	Complete design, partial funding	Designed on paper	Conceptual design	Not designed
Fit with PNNL's Economic Development Mission	In complete alignment	Strong alignment, but with some divergence	Generally aligned	Somewhat aligned	Not aligned
Observed Immediate Impact	Significant impact	Adequate impact	Minor impact	Insignificant impact	No impact
Likelihood of Future Impact	Significant impact likely	Adequate impact likely	Impact somewhat likely	Impact possible	Impact unlikely

Figure 3.2

3.2.2 Document the success of the region's major research institutions in their collaboration to find science and technology solutions to regional needs

The weight of this indicator is 40%

3.2.2.1 Find solutions to significant regional needs from the science and technology resources available in the Northwest's major research institutions

The weight of this sub-indicator is 35%.

Description: Using the self-described needs of each of the three states in the Northwest, identify a reduced list of needs common to the states of the region and for which there may be potential scientific and/or technological solutions. Using the data mining, information visualization, or other available tools, identify a set of inventions and/or capabilities from the scientific and technology resources of the Northwest's major institutions that represent potential solutions to regional needs.

Definition: Regional area - Included in the NW are Washington, Idaho, and Oregon
Research Institutions – The list includes, but is not limited to, the major public universities of the NW and the DOE National Laboratories located in the region.:

- University of Washington
- University of Oregon
- University of Idaho
- Washington State University
- Oregon State University
- Oregon Health Sciences University
- Pacific Northwest National Laboratory
- Idaho National Environmental Engineering Laboratory

Performance Evaluation:

Outstanding: Identify and describe how two technologies and/or capabilities from northwest institutions might address one or more regional needs. The descriptions will include a characterization of the need and how the science and technology resource might be adapted to address the need.

Excellent: Identify and describe how a single technology or capability from northwest institutions might address a regional need.

Good: Identify potential science and technology solutions to at least one regional need.

Marginal: Develop a methodology that defines the process to be followed to identify and characterize potential science and technology solutions to regional needs.

Unsatisfactory: No progress.

3.2.2.2 Determine, or cause to be determined, the applicability of the identified potential science and technology solutions and identify and/or develop and utilize mechanisms for implementing them

The weight of this sub-indicator is 30%

Description: Simply identifying science and technology applicable to regional needs is always a necessary but rarely a sufficient condition to effect a solution to those needs. Just knowing that a possible technological response to a critical regional need is emerging from an R&D process

isn't the same as having a solution available for implementation. It may be that the technology will require significant time and money to mature or it may be that to be useful, the technology will have to be transferred to the commercial sector where it can be turned into a product that can be bought and installed. The intent of this indicator is to track progress made in preparing potential S&T solutions for further applied developmental research and/or commercialization.

Definition: Regional area - Included in the NW are Washington, Idaho, and Oregon Research Institutions – The list includes, but is not limited to, the major public universities of the NW and the DOE National Laboratories located in the region.:

- University of Washington
- University of Oregon
- University of Idaho
- Washington State University
- Oregon State University
- Oregon Health Sciences University
- Pacific Northwest National Laboratory
- Idaho National Environmental Engineering Laboratory

Assumptions: The Linking Regional Resources Group will be empowered to speak for or will obtain the proper involvement of their institutions in the disposition of their science and technology. The Linking Regional Resources Group will be able to achieve consensus on the rights of their institutions to "bundles" of technologies in which several institutions own different components of the science and technology assets, and funding from Government and/or commercial sources will be available to implement the solutions.

Performance Evaluation:

Outstanding: A business plan or funding proposal will be prepared to advance the commercialization or further the development of an applicable technology or set of capabilities from one or more of the Northwest research institutions.

Excellent: Identify a mechanism to implement a science and technology solution that appears to address regional needs and that has the concurrence of the participating research institutions.

Good: Identify a set of generic mechanisms to implement science and technology solutions and obtain the concurrence of the regional research institutions with those mechanisms.

Marginal: Discuss the mechanisms that regional research institutions might adopt to implement science and technology solutions to regional needs.

Unsatisfactory: No progress.

3.2.2.3 Demonstrate the relationships established among the research institutions of the Northwest and the successes of this group in developing a process for and finding science and technology solutions to regional issues and needs

The weight of this sub-indicator is 35%

Description: As the activities of the Linking Regional Resources (LRR) Group expand and initial successes are achieved in identifying new technologies and capabilities and targeting them to meet regional needs, a concerted effort will be made to present the LRR process and accomplishments to organizations that have responsibilities for responding to regional issues

and needs. The intent is to increase visibility of the LRR and to work on regional issues of significant importance to the Northwest.

Definition: Regional area - Included in the NW are Washington, Idaho, and Oregon Research Institutions – The list includes, but is not limited to, the major public universities of the NW and the DOE National Laboratories located in the region:

- University of Washington
- University of Oregon
- University of Idaho
- Washington State University
- Oregon State University
- Oregon Health Sciences University
- Pacific Northwest National Laboratory
- Idaho National Environmental Engineering Laboratory

Assumptions: The Linking Regional Resources Group will obtain the clearances needed to permit the development of presentations and publications for broad dissemination. The Linking Regional Resources Group will be able to achieve consensus on the messages to be delivered and the organizations to be targeted.

Performance Evaluation:

Outstanding: Create a white paper and formal presentation describing the Linking Regional Resources program and its accomplishments. Present the results to one Governmental and one non-Governmental agency in one or more of the states of the region.

Excellent: Create a white paper and formal presentation describing the Linking Regional Resources program and its accomplishments. Present the results in a public forum.

Good: Create a white paper and formal presentation describing the Linking Regional Resources program and its accomplishments.

Marginal: Obtain agreement from the members of the Linking Regional Resources group to prepare a white paper and formal presentation describing the program and its accomplishments.

Unsatisfactory: No progress

3.2.3 Enhance the Laboratory's ability to generate revenues from commercialization for uses consistent with the mission of PNNL

The weight of this indicator is 20%.

Description: There are many ways in which the technology commercialization program provides value to the Lab, to DOE, to Battelle, and to our external customers. One of the primary objectives of the commercialization program is the generation of financial returns to Battelle and the Laboratory for reinvestment in facilities, equipment, people and technology. Through the active management of the DOE derived inventions and the execution of the Government Funded and Contractor Funded Technology Transfer programs, licensing opportunities will be pursued that will lead to the generation of licensing income. A significant portion of the income will be used for reinvestment in the laboratory. Increasing the amount of licensing income and thereby the amount of resources for reinvestment, is the basis for this performance indicator.

Definitions:

Contractor-funded technology transfer (CFTT): Electing to pursue a Contractor-funded technology transfer pathway means the licensing manager must find Battelle resources to pay all or major portions of the patenting, marketing, and licensing, costs of the commercialization process. If the invention is successfully commercialized, the revenue is used to reimburse these investments and reward key contributors. A portion (51%) of the remaining funds is to be returned to the Laboratory for uses "consistent with the mission."

Government-funded technology transfer (GFTT): As an alternative to Contractor-funded technology transfer efforts, the licensing manager can elect to use a Government-funded technology transfer pathway. In this case, the funds used for patenting, marketing, licensing and all related activities are paid with DOE funds. Revenues from the commercialization of the invention, after sharing with key contributors, are to be returned to the Laboratory for uses "consistent with the mission."

Uses consistent with mission: Net income from commercialization will be utilized in a manner consistent with the mission and objective of the Laboratory. Planned use of these funds include but are not limited to technology transfer activities, intellectual property commercialization, laboratory outreach, educational endeavors, laboratory initiatives, and items consistent with the mission and objectives of the facility but unallowable under Contract DE-AC06-76RLO1830.

Assumptions:

1) Battelle and PNNL management make resources necessary to fund the Contractor Funded Technology Transfer program and the Government Funded Technology Transfer program available.

2) Provisions remain in the operating contract that provide for the technology commercialization program including CFTT and GFTT programs.

Performance Evaluation:

Outstanding:	Generation of licensing revenue from DOE derived inventions that exceed $900,000
Excellent:	Generation of licensing revenue from DOE derived inventions between $790,000 and $900,000
Good:	Generation of licensing revenue from DOE derived inventions between $675,000 and $790,000
Marginal:	Generation of licensing revenue from DOE derived inventions between $600,000 and $675,000
Unsatisfactory:	Generation of licensing revenue from DOE derived inventions of less than $600,000

3.3 Impact leadership and diversity in science and engineering education through Lab-sponsored programs for students and educators

The weight of this objective is 20%.

3.3.1 Impacts of Laboratory-sponsored programs for K-8 science education leaders

The weight of this indicator is 50%.

Description: This indicator measures the impact that a Laboratory-sponsored program, the Yakima Valley/Tri-Cities Leadership and Assistance for Education Reform (YV/TC LASER) Project has on the capacity of school district leadership teams (e.g., administrators, teachers, and community members) to initiate and implement their strategic plans for K-8 science education reform.

Assumptions: None

Performance Evaluation: This indicator will be measured through the use of a survey to be administered to LASER leadership teams from partner school districts from Yakima to Walla Walla. Surveys will gather information about the impact of the Lab's YV/TC LASER Project on the capacity of school district leadership teams to initiate and implement their strategic plans for K-8 science education reform. Three questions, using a four-point Likert Scale, will be used to determine impacts.

- LASER enabled our leadership team to "network" with other leadership teams in ways that built our capacity to initiate and implement our K-8 strategic plan for science education reform.
- LASER activities (e.g. presentations, workshops, etc.) built our capacity to implement our K-8 strategic plan for science education by enhancing our team's knowledge and skills.
- LASER fostered the development of action plans, which built our capacity to initiate and implement our science education reform effort.

For each participant's evaluation, the sum of the answers to the 3 questions is calculated (a total of 12 possible points).

Outstanding:	75% of participants' evaluations received have a sum of 10 or higher (out of a possible 12 points)
Excellent:	70% of participants' evaluations received have a sum of 9 or higher (out of a possible 12 points)
Good:	70% of participants' evaluations received have a sum of 8 or higher (out of a possible 12 points)
Marginal:	65% of participants' evaluations received have a sum of 7 or higher (out of a possible 12 points)
Unsatisfactory:	60% of participants' evaluations received have a sum of 6 or higher (out of a possible 12 points)

3.3.2 Enhanced diversity of the applicant pool for Laboratory-sponsored student programs

The weight of this indicator is 50%.

Description: This indicator utilizes the FY2002 baseline information on the diversity of student appointees, particularly those historically under-represented in science, technology, engineering and mathematics (STEM), to increase the diversity of students applying for project-funded fellowships.

Assumptions: None

Performance Evaluation: This indicator measures the diversity in the pool of applicants for PNNL project-funded fellowships:

- Baseline FY2002 data for diversity of the pool of completed applications.
- Visit universities/conferences with student populations the Laboratory desires to recruit.

Outstanding:	50% increase in # of diverse applicants
Excellent:	40% increase in # of diverse applicants
Good:	30% increase in # of diverse applicants
Marginal:	15% increase in # of diverse applicants
Unsatisfactory:	0% increase in # of diverse applicants

Based on the above targets, the percent increase in diverse students will be assigned a prorated value point rating between 0.0 and 4.0 based on the degree to which the goal is satisfied. The value points for this Performance Indicator will be entered into Table 3.1, weighted and rolled up to objective and outcome level. Adjectival ratings for this indicator will be determined in accordance with Table 3.4.

ELEMENT	Adjectival Rating	Value Points	Indicator Weight	Total Points	Objective Weight	Total Points
3.0 Leadership Excellence						
3.1 Attract, develop and retain the critical staff necessary to achieve simultaneous excellence in S&T, operations, and community trust						
3.1.1 Identify PNNL "best in class" workgroups by examining staff engagement assessment scores and objective performance data. Utilize this data to develop best practices training programs and talent profiles			100%			
Objective 3.1 Total					30%	
3.2 Demonstrate the relevance of Pacific Northwest National Laboratory to the needs of the community and the region						
3.2.1 Support growth of the local and regional technology-based primary business sector (roll up from Table 3.2)			40%			
3.2.2 Document the success of the region's major research institutions in their collaboration to find science and technology solutions to regional needs (roll up from Table 3.3)			40%			
3.2.3 Enhance the Laboratory's ability to generate revenues from commercialization for uses consistent with the mission of PNNL			20%			
Objective 3.2 Total					50%	
3.3 Impact leadership and diversity in science and engineering education through Lab-sponsored programs for students and educators						
3.3.1 Impacts of Laboratory-sponsored programs for K-8 science education leaders			50%			
3.3.2 Enhanced diversity of the applicant pool for Laboratory-sponsored student programs			50%			
Objective 3.3 Total					20%	
Critical Outcome 3.0 Total						

Table 3.1. Leadership Excellence Critical Outcome Performance Rating Development

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
3.2.1 Support growth of the local and regional technology-based primary business sector					
3.2.1.1 The number of new business and expansions in the local area where Battelle had a material role in their establishment			30%		
3.2.1.2 Effectiveness in providing technical assistance to local and regional firms			35%		
3.2.1.3 Develop and champion at least one new economic development initiative			35%		
				Overall Indicator 3.2.1 Total	

Table 3.2. Performance Indicator 3.2.1 Overall Score Calculation

ELEMENT	Adjectival Rating	Value Points	Weight	Weighted Score	Overall Weighted Score
3.2.2 Document the success of the region's major research institutions in their collaboration to find science and technology solutions to regional needs					
3.2.2.1 Find solutions to significant regional needs from the science and technology resources available in the Northwest's major research institutions			35%		
3.2.2.2 Determine, or cause to be determined, the applicability of the identified potential science and technology solutions and identify and/or develop and utilize mechanisms for implementing them			30%		
3.2.2.3 Demonstrate the relationships established among the research institutions of the Northwest and the successes of this group in developing a process for and finding science and technology solutions to regional issues and needs			35%		
				Overall Indicator 3.2.2 Total	

Table 3.3. Performance Indicator 3.2.2 Overall Score Calculation

Total Score	4.0 - 3.5	3.4 - 2.5	2.4 - 1.5	1.4 - 0.5	<0.5
Final Rating	Outstanding	Excellent	Good	Marginal	Unsatisfactory

Table 3.4. Leadership Excellence Critical Outcome Final Rating

III. CONTRACTOR SELF-ASSESSMENT PROGRAM

RL views the Contractor's self-assessment program as a primary tool to determine if it is accomplishing agreed-to outcomes, objectives and performance indicators, and is doing so in a manner that is acceptable. In addition, the Contractor utilizes self-assessment as a primary mechanism for evaluating the overall effectiveness of its organizations and to promote continuous improvement. The key to the performance-based evaluation process employed within the Laboratory is the utilization of self-assessment as a primary tool for evaluation of the Contractor. In order for this concept to continue to be successful DOE must diligently work with Contractor counterparts throughout each year to track the progress of the outcomes and objectives set forth within the Contract and/or the individual Directorate-level self-assessment plans. This regular interaction should be carried out under the principles of partnership and trust that form the basis of DOE's relationship with the Contractor.

Contractor Directorate-Level Self-Assessments
The Contractor shall develop and maintain Directorate-level self-assessment plans. Using the performance agreement as the basis, self-assessment plans are to be developed and maintained by each directorate, in cooperation with both their internal and external (AMT, RL, or other) counterparts. These agreed upon plans are to be provided to the applicable DOE RL, AMT, or other DOE customer within the first quarter of FY2003.

Contractor Laboratory-Level Self-Assessment Report
The Contractor is required to provide monthly and/or quarterly updates (as appropriate) on the performance against the performance agreement. The Contractor shall provide a formal status briefing at mid-year and year-end, and a formal self-evaluation report to the AMT at year-end. Specific due dates for the above-mentioned briefings and reports shall to be agreed to by the Laboratory Director and the RL Associate Manager for Science & Technology.

In addition, the year-end report must provide:

- an overall summary of performance for FY2003,
- performance ratings for each outcome, objective, and indicator and the Laboratory overall, and
- a summary of key strengths and opportunities for improvement identified as part of the directorate self-assessment activities.

**Part III – List of Documents,
Exhibits, And Other Attachments**

Section J

Appendix F

Radiochemical Processing Laboratory Authorization Agreement

Radiochemical Processing Laboratory Authorization Agreement
Between
U.S. Department of Energy, Richland Operations Office
And
Battelle Memorial Institute,
Operator of the Pacific Northwest National Laboratory

1. Purpose

This Authorization Agreement (AA) serves as a mechanism whereby the U.S. Department of Energy (DOE), Richland Operations Office (RL) and Battelle Memorial Institute (Battelle), operator of the Pacific Northwest National Laboratory (PNNL), jointly agree to the conditions for conducting work safely and efficiently in the Radiochemical Processing Laboratory (RPL), also known as the 325 Building.

Work must be accomplished in a manner that achieves high levels of quality, protects the environment, the safety and health of workers and the public, and is compliant with applicable contractual and regulatory requirements. The intent of the AA is to address significant elements important to establishing and supporting the RPL Authorization Envelope (AE). The AA will be incorporated as an Appendix to Battelle's prime Contract (DE-AC06-76RL01830).

2. Scope of Authorization

The AA applies to the scope of work authorized by DOE in the RPL Nuclear Safety Basis, RPL Safety and Health Requirements Basis, and RPL Environmental Basis**.**

3. Authorization Envelope

The RPL AE establishes the limits of safe operation for all RPL activities. These limits are based on documented design limitations, controls, regulatory requirements, and assumptions or commitments that are required and based on identified hazards associated with the RPL facility and operations. The AE includes the RPL Nuclear Safety Basis as required by 10 CFR 830.202, "Safety Basis" and applicable environmental, safety, and health requirements.

The RPL AE includes those documents listed in Sections 3.1, 3.2, and 3.3 of this AA. Battelle will maintain the documents under a disciplined configuration management program. Because the RPL is a research and development facility, the work conducted in the facility frequently changes consistent with programmatic objectives. However, the activities performed in RPL will be performed within the physical boundaries (i.e., systems, structures, and components) defined in the AE defined in this section.

This agreement will be reviewed at least every two years and updated as necessary. This AA will be revised if new documents are added to or existing documents are deleted from the listings in Sections 3.1, 3.2, and 3.3. Revisions or updates to the listed documents will not

cause this AA to be revised until the scheduled review and revision date.

3.1 RPL Nuclear Safety Basis:

- PNNL-SAR-RPL, "Safety Analysis Report for the Radiochemical Processing Laboratory," and approved revisions and/or amendments thereto;

- PNNL-TSR-RPL, "Technical safety Requirements for the Radiochemical Processing Laboratory," and approved revisions and/or amendments thereto; and

- Safety Evaluation Report(s), and revisions and/or amendments thereto, on the PNNL-SAR-RPL or PNNL-TSR-RPL.

3.2 RPL Safety and Health Requirements Basis:

- Attachment A to this agreement, "List of DOE Directives Uniquely Applicable to RPL Operations," and Battelle's prime Contract, DE-AC06-76RL01830, Section J, Appendix D, "List of Applicable DOE Directives and External Requirements", and subsequent approved revisions, constitutes the safety and health requirements basis. Authorized deviations for RPL from the "List of DOE Directives Uniquely Applicable to RPL Operations" will be documented by Battelle and approved by DOE through a change to this agreement, or through Exemption Requests, Compliance Schedule Agreements, or Implementation Plans, as appropriate. New or revised requirements to the "List of DOE Directives Uniquely Applicable to RPL Operations" will be incorporated into this agreement as negotiated with DOE.

- RPL Facility Use Agreement, as approved and amended by Battelle.

3.3 RPL Environmental Basis:

State, Federal, or local government environmental permits obtained in the name of DOE or Battelle that include provisions applicable to the RPL facility and/or activities. Environmental permits are obtained in accordance with the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, and other applicable requirements.

A. Dangerous Waste Permit:

- Dangerous Waste Portion of the Hanford Site Resource Conservation and Recovery Act Permit No. WA7890008967, and any approved modifications. Note: The Dangerous Waste Permit Application for the RPL is included in Attachment 36 of the above document: 325 Hazardous Waste Treatment Units Part A, Form 3 and Part B Permit Application, DOE/RL-92-35.

- Hazardous and Solid Waste Amendment portion of the Hanford Site Resource Conservation and Recovery Act Permit No. WA7890008967, and any approved

modifications.

B. Radioactive Air Emissions:

- State of Washington, Department of Health, Hanford Site Air Operating Permit, Radioactive Air Emissions Permit, Ecology Publication #00-05-006.

C. State of Washington Water Discharges:

- Hydrotest, Maintenance, and Construction Discharges to Ground (ST-4508)
- Cooling Water and Condensate Discharges to Ground (ST-4509)
- Storm Water Discharges to Ground (ST-4510)

D. Chemical Air Emissions

- State of Washington, Department of Ecology, Hazardous Waste Treatment Unit & Building Emissions Permit #DNWP-004
- State of Washington, Department of Ecology, Hanford Site Air Operating Permit, Radioactive Air Emissions Permit, Ecology Publication #00-05-006.

4. Terms and Conditions

The RPL facility and activities are subject to the terms and conditions as identified in Battelle's prime Contract, including Section C – "Description/Specifications/Statement of Work" and Section H – "Special Contract Requirements." The following RPL-specific activities are required by Battelle's prime Contract:

- Implement and maintain the RPL Nuclear Safety Basis consistent with the facility configuration (hardware, procedures, and organization) through an approved Unreviewed Safety Question process compliant with the requirements of 10 CFR 830.203, "Unreviewed Safety Question Process," for the nuclear safety basis documents listed in Section 3.1 above.
- Follow all applicable federal, state, and local statutes, regulations, rules, ordinances (collectively, "Laws"), and permit conditions, unless the appropriate oversight authority grants a waiver or exemption.
- Implement and maintain an approved Quality Assurance program consistent with 10 CFR 830, Subpart A, "Quality Assurance Requirements."
- Implement and maintain an approved Radiation Protection program consistent with 10 CFR 835, "Occupational Radiation Protection."

- Perform an operational readiness review or a readiness assessment in accordance with DOE CRD O 425.1B prior to restart of the RPL following 1) DOE management directed unplanned shutdown for safety reasons, 2) shutdown because operations are outside the nuclear safety basis, and/or 3) shutdown for greater than twelve months. In the event of a major modification, a Battelle-prepared and DOE-approved Preliminary Documented Safety Analysis (PDSA) is required by 10 CFR 830, Subpart B. The PDSA associated with the modification would address restart requirements, including those associated with DOE CRD O 425.1B.

- Evaluate the need for performing an operational readiness review or readiness assessment prior to startup or restart of program work when the new or restarted program work requires revision to the RPL DSA or RPL TSRs as a result of a positive unreviewed safety question.

New or revised terms and conditions will be incorporated into this agreement as negotiated between Battelle and DOE. Battelle will evaluate new or revised terms and conditions as part of the Requirements Management process to identify any impacts to this agreement. Authorized deviations for RPL will be documented by Battelle and approved by DOE through a modification to this agreement, Exemption Requests, Compliance Schedule Agreements, or Implementation Plans, as appropriate.

If Battelle discovers a deviation or noncompliance with the documents listed or referenced by Section 3 of this AA, Battelle will take the actions noted in the applicable document(s). This AA does not impose any new actions to be taken by Battelle.

5. Contractor Qualifications

DOE has determined through the performance of management assessments, the validation of Battelle's Integrated Environment, Safety, and Health Management System, and performance of readiness reviews and programmatic reviews that Battelle is technically qualified to engage in the activities authorized by this agreement and provides adequate protection of the workforce, the public, and the environment.

6. Effective Date and Expiration Date

This AA becomes effective upon the date of signature by both Parties and will remain in effect until rescinded or revised in writing by both Parties, or shall expire upon expiration or termination of Contract DE-AC06-76RL01830.

This AA supersedes all prior RPL AAs, as amended, and all such prior AAs are specifically rescinded by mutual agreement.

7. Statement of Agreement

This agreement is subject to the conditions specified herein, and DOE and Battelle each agree to the conditions contained herein. The terms of this AA, if breached in any manner by any party, shall not subject the breaching party to any liabilities, fines, or penalties not already imposed under the terms and conditions of Battelle's prime Contract and current statutes, rules, regulations and ordinances.

Signed By:

LEGAL APPROVAL KH

Leonard K. Peters
Director
Pacific Northwest National Laboratory

Date: 8/26/03

for Keith A Klein, Manager
Richland Operations Office
U.S. Department of Energy

Date: 8/26/03

Attachment A
List of DOE Directives Uniquely Applicable to RPL Operations

CRD O 151.1A	Comprehensive Emergency Management System	Safeguards, Security, and Emergency Preparedness Management System
DOE-0223	RL Emergency Implementing Procedures	Safeguards, Security, and Emergency Preparedness Management System
CRD O 433.1	Management Program for Nuclear Facilities	Facility Management
CRD O 460.1B	Packaging and Transportation Safety	Environmental
CRD M 460.2-1	Radioactive Material Transportation Practices Manual	Environmental
CRD O 460.2, Chg 1	Departmental Material Transportation and Packaging Management	Environmental
CRD O 5480.19, Chg 2	Conduct of Operations Requirements for DOE Facilities	Facility Management
CRD O 5480.20A, Chg. 1	Personnel Selection, Qualification, Training and Staffing requirements at DOE Reactor and Non-Reactor Nuclear Facilities	Training and Qualification

PART III – List of Documents, Exhibits, And Other Attachments

Section J

Appendix G

DOE Research and Development Bilateral And Multilateral Agreements

Office of Policy and International Affairs

All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description

Country: *Argentina*

61	407	8/1/1996	8/1/2001	Primary DOE			None	Energy Research and Development	Energy Technology Cooperation

Title: ***Specific Arrangement between the Department of Energy of the United States of America and the Public Works and Services Secretariat of the Argentine Republic in the Area of Energy Technology Cooperation***

Comment: Energy Forecasting meeting was hosted by FE in Oct. of 97. Seminar on New Technologies for the Energy Sector was held in Buenos Aires in Dec 98. EERE has work on energy efficiency and renewable projects started under a statement of intent which was a precursor to this agreement. In Dec of 97 four priority areas of work were identified - energy efficiency, energy and environment, energy planning, and renewable energy by then Secretaries of Energy.

62	409	10/16/199	10/16/200	Primary DOE			None	Arms Control and Nonproliferation	Nuclear Technologies

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the National Atomic Energy Commission of the Argentine Republic for Technical Exchange and Cooperation in the area of Peaceful Uses of Nuclear Energy***

Comment: Expanded sister lab arrangement supporting Article IV of the NPT. Existing annexes cover work in Molybdenum-99 production for LEU, boron neutron capture therapy, decontamination and decommissioning, and LEU advanced fuels.

475	431	4/13/1998	10/16/200	Secondary DOE		62	Primary DOE	Arms Control and Nonproliferation	Annex 1 - LEU Moly-99 production

Title: ***Project Annex 1 Cooperation in the Field of Molybdenum-99 Production from Low-Enriched Uranium***

Comment: In force as long as the Implementing Arrangement. Action sheets are under development.

521	431	2/8/1999	2/8/2003	Tertiary DOE		475	Secondary DOE	Nuclear Energy	Action Sheet 1 - Project Annex 1

Title: ***Action Sheet 1 pursuant to Project Annex 1 for Cooperation in the Field of Molybdenum-99 Production for Low-Enriched Uranium between the National Atomic Energy Commission of he Argentine Republic and the University of Chicago, as Operator of Argonne National Laboratory***

Comment:

476	431	4/13/1998	10/16/200	Intergovernmental		62	Primary DOE	Arms Control and Nonproliferation	Annex 2 - Boron Neutron Capture Therapy

Title: ***Project Annex 2 Cooperation in the Area of Boron Neutron Capture Therapy***

Comment: In force as long as the Implementing Arrangement. Expert visits are underway.

503	431	8/11/1998		Tertiary DOE		476	Secondary DOE	Arms Control and Nonproliferation	Action Sheet 1

Title: ***Action Sheet 1 Pursuant to Project Annex 2 Cooperation in the Field of Boron Neutron Capture Therapy***

Comment: Technical exchange visits.

All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
477	431	4/13/1998	10/16/200	Secondary DOE		62	Primary DOE	Arms Control and Nonproliferation	Annex 3 - D&D of Nuclear Facilities
	Title:	***Project Annex 3 Cooperation in the Field of Decontamination and Decommissioning of Nuclear Facilities***							
	Comment:	In force as long as the Implementing Arrangement. Workshop was successfully held in fall of 98 at ANL.							
496	431	8/18/1998	10/16/200	Secondary DOE		62	Primary DOE	Arms Control and Nonproliferation	Annex 4 - Advanced Fuels
	Title:	***Project Annex 4 Cooperation in Field of Low Enriched Uranium Advanced Fuels***							
	Comment:	Remains in force as long as the Implement Arrangement. Action sheets are under development.							
555	431	2/8/1999	2/8/2003	Tertiary DOE		496	Secondary DOE	Arms Control and Nonproliferation	Action Sheet 1 Annex 4, Dart Code Development
	Title:	***Action Sheet I Pursuant to Project Annex 4 for Cooperation in the Field of Low Enriched Uranium Advanced Fuels between the National Atomic Energy Commission of the Argentine Republic (CNEA) and the University of Chicago, as Operator of Argonne National Laboratory***							
	Comment:								
63	331	4/18/1994	4/18/2004	Primary DOE			None	Arms Control and Nonproliferation	International Safeguards Applications
	Title:	***Agreement between the United States Department of Energy and the National Atomic Energy Commission of Argentina Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, Physical Protection, and Advanced Containment and Surveillance Technology for International Safeguards Applications***							
	Comment:	Cooperate in research, development, testing, and evaluation of technology, equipment and procedures in order to improve nuclear material control, accountancy, verification, physical protection and advanced containment and surveillance technologies for international safeguards applications.							
64	387	5/29/1996	5/29/2006	Primary DOE			None	Environmental Restoration and Waste Management	Radioactive and Mixed Waste Management
	Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the National Atomic Energy Commission of the Argentine Republic for Technical Exchange and Cooperation in the Area of Radioactive and Mixed Waste Management***							
	Comment:	Study radioactive and mixed waste management activities in such areas as: preparation and packaging; decontamination and decommissioning; surface and subsurface storage; characterization of geologic formations; disposal in geologic formations, etc.							

Country: ***Australia***

509	456	9/15/1998	9/14/2008	Primary DOE			None	Arms Control and Nonproliferation	Safeguards Arrangement
	Title:	***Arrangement between the United States Department of Energy and the Australian Safeguards and Nonproliferation Office Concerning Research and Development in Nuclear material Control Accountancy, Verification, Physical Protection, Advance Containment and Surveillance Technologies for International Safeguards***							
	Comment:								

Country: ***Austria***

All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
65	337	9/18/1994		Primary DOE			None	Energy Efficiency and Renewable Energy	EE/Conservation and Climate Change

Title: ***Memorandum of Understanding on Cooperation in Environmental Aspects of Energy Policy and the Protection of Global Climate***

Comment: Cooperate in areas of sufficient growth of energy supplies; energy efficiency and conservation measures and protection of the biosphere (climate change).

Country: ***Bangladesh***

501	450	12/15/199		Statement of Intent			None	Energy Research and Development	SOI in Enregy Cooperation

Title: ***Joint Statement of Cooperation in Energy***

Comment:

514	460	2/11/1999	2/11/2004	Primary DOE			None	Information and/or Personnel Exchange	Exchange of Energy Information

Title: ***Arrangement between the Department of Energy of the United States of America and the Ministry of Energy and Mineral Resources, Government of the People's Republic of Bangladesh for Exchange of Energy Information***

Comment: EIA will work with an agency designated by MEOMR to establish a reasonably balanced exchange of energy information.

Country: ***Botswana***

600	495	12/15/200		Statement of Intent			None	Fossil Energy	Cooperation in the Field of Fossil Energy

Title: ***Statement of Intent Between The Department of Energy of the United States of America and The Ministry of Minerals, Energy and Water Affairs of the Republic of Botswana for Cooperation in the Field of Fossil Energy Technology***

Comment:

Country: ***Brazil***

26	391	9/30/1996		Statement of Intent			None	Fossil Energy	Clean Coal Technologies

Title: ***Joint Statement of Intent on Clean Coal Technologies between the Department of Energy of the United States of America and the State of Rio Grande do Sul and the State of Santa Catarina, and the Sindicato Nacional da Industria da Extracao do Carvao, Eletrabras, and the Ministry of Mines and Energy of the Federal Republic of Brazil***

Comment: Intention to cooperate between DOE, the State of Rio Grande do Sul, the State of Santa Catarina, The Sindicato National da Industria da Extracao do Carvao, Electrobras, and the Ministry of Mines and Energy of Brazil in clean coal technologies.

655	550	6/20/2003	6/20/2008	Primary DOE			None	Science and Technology	Cooperation in Nuclear Energy

Title: ***Agreement between the Department of Energy of the United States of America nd the Ministry of Science and Technology of the Federative Republic of Brazil Concerning Cooperation in Nuclear Energy***

Comment:

All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
75	412	10/14/199	10/14/200	Primary DOE			None	Energy Research and Development	Energy Technology
	Title:	***Implementing Arrangement between the United States of America and the Federative Republic of Brazil for Cooperation in the Area of Energy Technology***							
	Comment:	Umbrella Agreement							
279	412	10/14/199	10/14/200	Secondary DOE		75	Primary DOE	Fossil Energy	Annex 1 - Coal and Power Systems
	Title:	***Annex I to the Implementing Arrangement between the United States of America and the Federative Republic of Brazil for Cooperation in the Area of Energy Technology in the Field of Coal and Power Systems***							
	Comment:	Exchange experience and views on clean coal technologies, advanced power systems, advanced coal preparation, and environmental monitoring technologies and standards.							
280	412	10/14/199	10/14/200	Secondary DOE		75	Primary DOE	Energy Efficiency and Renewable Energy	Annex 2 - Renewable Energy
	Title:	***Annex II to the Implementing Arrangement between the United States of America and the Federative Republic of Brazil for Cooperation in the Area of Energy Technology in the Field of Renewable Energy***							
	Comment:	Collaboration on renewables resource assessment, integration in electric utility, policy analysis, and identification of opportunities for renewable energy in Brazil.							
281	412	10/14/199	10/14/200	Secondary DOE		75	Primary DOE	Energy Efficiency and Renewable Energy	Annex 3- Energy Efficiency
	Title:	***Annex III - to the Implementing Arrangement between the United States of America and the Federative Republic of Brazil for Cooperation in the Area of Energy Technology in the Field of Energy Efficiency***							
	Comment:	Collaboration to increase energy, efficiency, promote global environmental protection, and stimulate the market in Brazil for energy efficiency goods and services.							
76	332	4/18/1994	4/18/2004	Primary DOE			None	Arms Control and Nonproliferation	International Safeguards Applications
	Title:	***Agreement between the United States Department of Energy and the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, and Advanced Containment and Surveillance Technologies for International Safeguards Applications***							
	Comment:								
77	376	9/19/1995	9/19/2000	Primary DOE			None	Arms Control and Nonproliferation	International Safeguards Applications
	Title:	***Agreement between the United States Department of Energy and the National Nuclear Energy Commission of Brazil Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, and Physical Protection, and Advanced Containment and Surveillance Technologies for International Safeguards Applications***							
	Comment:								
651	546	9/17/2001	9/17/2006	Secondary DOE		77	Primary DOE	Arms Control and Nonproliferation	Extension - Agreement bet. DOE and the National Nuclear Energy Commission
	Title:	***Agreement to Extend the Agreement between the Department of Energy of the United States and the National Nuclear Energy Commission of Brazil Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, Physical Protection, and Advanced Containment and Surveillance Technologies for International Safeguards Applications***							
	Comment:	5- year extension							

Country: ***Canada***

All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
28	363	7/21/1995		Statement of Intent		21	Broad	Energy Efficiency and Renewable Energy	Building Energy Simulation Tools
Title:	***Statement of Intent between the United States Department of Energy and the Department of Natural Resources of Canada on Building Energy Simulation Tools***								
Comment:	Collaborate in building energy simulation R&D and information dissemination.								
614	509	10/22/200	10/22/200	Primary DOE			None	Energy Efficiency and Renewable Energy	Arrangement between DOE and Dept. of Natural Resources Canada
Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Department of Natural Resources Canada for Cooperation in the areas of Microgeneration and Community Energy Systems***								
Comment:									
632	527	5/10/2000	5/10/2005	Primary DOE			None	Science and Technology	Cooperation in the area of Bioenergy
Title:	***Implementing Arrangement between the United States Department of Energy and the Department of Natural Resources of Canada for Cooperation in the area of Bioenergy***								
Comment:									
656	551	6/17/2003	6/17/2008	Primary DOE			None	Nuclear Energy	Nuclear Energy Research
Title:	***Implementing Arrangement between the United States Department of Energy and the Department of Natural Resources of Canada and Atomic Energy of Canada Limited for Collaboration in the area of Nuclear Energy Research***								
Comment:	Foreign Party for Atomic Energy of Canada Limited signed this agreement also on June 17, 2003.								
81	425	3/18/1998	3/18/2008	Primary DOE			None	Energy Research and Development	Energy R&D
Title:	***Memorandum of Understanding between the Department of Energy of the United States of America and the Department of Natural Resources of Canada on Collaboration in Energy Research and Development***								
Comment:	Establish wider areas of cooperation for mutual benefit								
524	469	2/1/2000	2/1/2005	Secondary DOE		81	Primary DOE	Fossil Energy	DOE/NRCan Fuel Cells Implementing Arrangement
Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Department of Natural resources Canada for Cooperation in the area of Fuel Cells***								
Comment:	Automatic Renewal after 5 years with written agreement of the participants.								
525	470	2/1/2000	2/1/2005	Secondary DOE		81	Primary DOE	Fossil Energy	DOE/NRCan Fossil Fuels Implementing
Title:	***Implementing Arrangement between Department of Energy of the United States of America and the Department of Natural Resources Canada for Cooperation in the area of Fossil Fuels***								
Comment:	Automatic renewal for 5 years with written agreement of the participants.								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
646	541	9/11/2002	9/11/2007	Tertiary DOE		525	Secondary DOE	Fossil Energy	Project Annex I - Weyburn CO2 Sequestration

Title: ***Project Annex I - Weyburn CO2 Sequestration Project under the Implementing Arrangement Between the Department of Energy of the United States of America and the Department of Natural Resources Canada for Cooperation in the Area of Fossil Fuels***

Comment:

27	341	11/18/199		Statement of Intent		21	Broad	Energy Efficiency and Renewable Energy	Biennial Biomass Conf. of the Americas

Title: ***Statement of Intent between the United States Department of Energy and the Department of Mines and Resources on Biennial Biomass Conference of Americas***

Comment: Collaborate in a biennial conference to present the latest results in biomass energy research and development.

Country: *Chile*

35	352	3/7/1995		Statement of Intent			None	Energy Efficiency and Renewable Energy	Control Emissions of Greenhouse Gases

Title: ***Statement of Intent for Sustainable Development Cooperation and Joint Implementation of Measures to Control Emissions of Greenhouse Gases Between the Department of Energy of the United States of America and the National Energy Commission of Chile***

Comment: Intent to facilitate the development of joint implementation projects in order to encourage: market deployment of greenhouse gas-reducing technologies, including energy efficiency and renewable energy technologies; education and training programs, etc.

474	430	4/18/1998	4/12/2000	Statement of Intent			None	Energy Efficiency and Renewable Energy	Natural Gas-Powered Bus Pilot Project

Title: ***Statement of Intent Concerning the Natural Gas-Powered Bus Pilot Project in the Metropolitan Region of Chile***

Comment: Signed in Santiago, Chile, during the SOAII

Country: *China*

1	427	1/31/1979	4/30/2001	Intergovernmental			None	Science and Technology	Gov't to Gov't S&T

Title: ***Agreement between the Government of United States of America and the Government of People's Republic of China on Cooperation in Science and Technology***

Comment: Need copy of agreement

238	123	5/11/1983	4/30/2001	Primary DOE		1	Intergovernmental	Fusion Energy	Protocol on Nuclear Physics and Magnetic Fusion

Title: ***Protocol between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China on Cooperation in the Fields of Nuclear Physics and Controlled Magnetic Fusion Research***

Comment: Cooperate in promoting each other's program in Nuclear Physics and Controlled Magnetic Fusion. Co-terminates with umbrella S&T agreement.

290	223	9/28/1987	4/30/2001	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 2 - Mine Safety and Health

Title: ***Annex II to the Protocol on Cooperation in the Field of Fossil Energy Research and Development between the Department of Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China in the Area of Mine Safety and Health***

Comment: Co-terminates with the Protocol

All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
291	217	8/19/1987	4/30/2001	Secondary DOE		239	Primary DOE	Energy Research and Development	Annex 3 - Atmospheric Trace Gasses

Title: ***Annex III to the protocol on fossil energy R&D on Cooperation in the field of atmospheric trace gases***

Comment: Co-terminates with the Protocol

292	226	10/13/198	4/30/2001	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 4 - Coal Preparation & Waste Stream Utilization

Title: ***Annex IV to protocol on cooperation in field of fossil energy R&D between U.S. Department of Energy & Ministry of Coal Industry of the People's Republic of China in the area of coal preparation and waste stream utilization***

Comment: TASKS PLANNED WERE COMPLETED IN 10/90. DISCUSSIONS ON POSSIBLE FURTHER COOPERATION IN COAL PREP. Co-terminates with the Protocol

293	227	10/13/198	4/30/2001	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 5 - Atmospheric Fluidized Bed Combustion Info Exchange

Title: ***Annex V to protocol on cooperation in field of fossil energy R&D between U.S. Department of Energy - Ministry of Coal Industry of the People's Republic of China in the area of atmospheric fluidized bed (AFB) combustion information exchange***

Comment: EXCHANGE OF REPORTS AND DATA. Co-terminates with Protocol

296	349	2/23/1995	2/23/2000	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 11 - Coal Bed Methane Recovery and Utilization

Title: ***Annex XI to the Protocol for Cooperation in the Field of Fossil Energy Research and Development between the Department Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China for Cooperation in the Area of Coalbed Methane Recovery and Utilization***

Comment: Promote technological and economic cooperation in coal bed methane recovery and utilization technology in order to make positive contributions toward improving recovery efficiency and utilization of globally significant natural gas energy resources.

297	348	2/23/1995	2/23/2000	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 12 - Regional Climate Research

Title: ***Annex XII to the Protocol on Cooperation in the Field of Fossil Energy Research and Development between the Department Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China for Cooperation in the Area of Regional Climate Research with the China Meteorological Administration***

Comment: Establish a program of joint R&D and information exchange to document regional climate and climate change, to predict regional climate and climate change and to identify regional impacts of climate

485	439	11/14/199	11/14/200	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 13 - Fossil Fuel Utilization

Title: ***Annex XIII to the Protocol for Cooperation in the Field of Fossil Energy Research and Development between the Department of Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China in the Area of Fossil Fuel Utilization for Production of Chemicals***

Comment: Co-terminiates with Protocol

298	413	11/14/199	11/14/200	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 14 - Bilateral Consultations on Coal Industry

Title: ***Annex XIV to the Protocol for Cooperation in the field of Fossil Energy Research & Development between the Department of Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China on Bilateral Consultations and Exchanges on Coal Industry Development and Information***

Comment: Co-terminates with the Protocol

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
618	513	12/7/2000	12/7/2005	Secondary DOE		239	Primary DOE	Fossil Energy	Annex III - for Cooperation in the areas of Oil and

Title: ***Annex III to the Protocol for Cooperation in the Field of Fossil Energy Technology Development and Utilization between the Department of Energy of the United States of America and The Ministry of Science and Technology of the People's Republic of China for Cooperation in the areas of Oil and Gas***

Comment:

240	351	2/23/1995	2/22/2005	Primary DOE		1	Intergovernmental	Energy Efficiency and Renewable Energy	Protocol for Energy Efficiency and Renewable

Title: ***Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China***

Comment: Desire to conduct bilateral energy consultations by forming a Chinese-American Ministerial Working Group to enhance the understanding of energy issues and promote the exchange of information on energy policies, programs and technologies.

478	432	6/27/1995	6/27/2000	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 1 - 100 Counties Renewable Energy

Title: ***Annex I to the Protocol for Cooperation in the Field of Energy Efficiency and Renewable Energy between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China for Developing Cooperative Activities in the Area of Renewable Energy Under the Hundred Counties Integrated Rural Energy Development Program in China between the Department of Energy of the United States of America and the Ministry of Agriculture of the People's Republic of China***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first

299	420	10/25/199	10/25/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 2 - Wind Energy Development

Title: ***Wind Energy Development in China Developing Cooperative Activities between the Department of Energy of the United States of America and the Ministry of Electric Power of the People's Republic of China ANNEX II under the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization between the Department of Energy of the United States of America and the State Science and Technology Commission of the People's Republic of China***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first.

300	422	10/25/199	10/25/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 3 - Energy Efficiency

Title: ***Annex III to the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and utilization between the Department of Energy of the United States of America and the State Science and Technology Commission of the People's Republic of China for Cooperation Between the Department of Energy of the United States of America and the State Planning Commission of the People's Republic of China in the Area of Energy Efficiency***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first

301	421	10/25/199	10/25/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 4 - Renewable Energy Business Development

Title: ***Renewable Energy Business Development ANNEX IV Cooperative Activities between the Department of Energy of the United States of America and the State Economic and Trade Commission of the People's Republic of China***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first

302	414	11/18/199	11/18/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 5 - Electric Vehicle Development

Title: ***The Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China for Cooperation in the Field of Energy Efficiency and Renewable Energy Technology Development and Utilization Annex V Electric Vehicle and Hybrid-Electric Vehicle Development***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
303	415	11/18/199	11/18/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 6 - Geothermal Production and Use
Title:	***Geothermal Production and Use Cooperative Activities between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China Annex VI under The Protocol for cooperation in the Field of Energy Efficiency and renewable Energy Technology Development and Utilization between the Department of Energy of the United States of America and the State Science and Technology Commission of the People's Republic of China***								
Comment:	Remains in force for five years or until termination of the Protocol, whichever occurs first.								
490	443	7/9/1998		Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Design Criteria for Energy Efficient Building
Title:	***Statement of Work between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China***								
Comment:									
563	486	5/11/2000	5/11/2005	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 7 - Renewable Energy Policy and Planning
Title:	***Renewable Energy Policy and Planning Annex VII Cooperative Activities between Department of Energy of the United States of America and the State Development Planning Commission of the People's Republic of China***								
Comment:	Remains in force for five years or until termination of the Protocol, whichever occurs first.								
616	511	7/18/2001		Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Design Criteria for Energy Efficient Building
Title:	***Amendment to The Statement of Work of July 9, 1998 between The Department of Energy of the United States of America and The Ministry of Science and Technology of the People's Republic of***								
Comment:									
621	516	2/12/2002	2/12/2007	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex II - The State Power Corporation of China
Title:	***Agreement to Extend Annex II to the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization for Cooperative Activities in Wind Development in China between the Department of Energy of the United States of America and the State Power Corporation of China***								
Comment:									
622	517	2/12/2002	2/12/2007	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex III - State Planning Commission
Title:	***Agreement to Extend and Amend Annex III to the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization for Cooperative Activities in Energy Efficiency between The Department of Energy of the United States of America and the State Planning Commission of the People's Republic of China***								
Comment:									
623	518	2/12/2002	2/12/2007	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex IV - State Economic and Trade Commission
Title:	***Agreement to Extend and Amend Annex IV to the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization for Cooperative Activities in Renewable Enerby Business Development between the Department of Energy of the United States of America and the State Economic and Trade Commission of the People's Republic of***								
Comment:									
241	38	1/31/1979	4/30/2001	Primary DOE		1	Intergovernmental	High Energy Physics	High Energy Physics
Title:	***Implementing Accord between the U.S. Department of Energy and the State Scientific and Technological Commission of the People's Republic of China on Cooperation in the Field of High Energy Physics.***								
Comment:	Co-Terminates with the S&T Agreement								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
242	311	11/4/1992	11/4/2002	Primary DOE		1	Intergovernmental	High Energy Physics	Superconducting Super Collider
	Title:	***Implementing Accord between the U.S. Department of Energy and the Chinese Academy of Sciences for a Program of Collaboration on the Superconducting Super Collider***							
	Comment:								
522	467	1/12/2000	1/12/2005	Primary DOE		1	Intergovernmental	Information and/or Personnel Exchange	Exchange of Energy Information
	Title:	***Protocol for Cooperation Concerning the Exchange of Energy Information between the Department of Energy of the United States of America and the National Bureau of Statistics of the People's Republic of China***							
	Comment:								
531	476	4/20/2000	4/30/2001	Primary DOE		1	Intergovernmental	Fossil Energy	Fossil Energy Protocol
	Title:	***Protocol for Cooperation in the Field of Fossil Energy Technology Development and Utilization between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China***							
	Comment:	Remains in force for 5 years from date of signature or as long as the Umbrella Agreement (US-China S&T) remains in force, whichever is shorter.							
649	544	11/19/200	11/19/200	Secondary DOE		531	Primary DOE	Fossil Energy	Annex II - Cooperation in the area of Clean Fuels
	Title:	***Annex II to the Protocol on Cooperation in the Field of Fossil Energy Technology Development and Utilization between The Department of Energy of the United States of America and The Ministry of Science and Technology of the People's Republic of China for Cooperation in the Area of Clean Fuels***							
	Comment:								
3	410	10/29/199		Intergovernmental			None	*Other - Energy and Environment	Energy and Environment Cooperation Initiative
	Title:	***United States of American and People's Republic of China Energy and Environment Cooperation Initiative***							
	Comment:								
31	347	2/23/1995		Statement of Intent			None	Nuclear Energy	Research Reactor Fuel
	Title:	***Statement of Intent between the Department of Energy of the United States of America and the China Atomic Energy Authority of the People's Republic of China on Research Reactor Fuel***							
	Comment:	Exchange information and views on opportunities for the conversion of research reactors to the use of low enriched uranium.							
493	445	6/29/1998	6/29/2003	Primary DOE			None	Nuclear Energy	Nuclear Technologies Agreement
	Title:	***Agreement between the Department of Energy of the United States of America and the State Development Planning Commission of the People's Republic of China on Cooperation Concerning Peaceful Uses of Nuclear Technologies***							
	Comment:	Subject to the Gov't to Gov't Peaceful Uses of Nuclear Energy Agreement signed July 23, 1985.							
494	445	6/29/1998	6/29/2003	Secondary DOE		493	Primary DOE	Nuclear Energy	Annex 1 - IPR
	Title:	***Annex I- Intellectual Property***							
	Comment:	Attached to original agreement.							

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
620	515	5/11/2000	5/11/2005	Secondary DOE		493	Primary DOE	Energy Efficiency and Renewable Energy	Annex VII

Title: ***Renewable Energy Policy and Planning Annex VII Cooperative Activities Between the Department of Energy of the United States of America and the State Development Planning Commission of the People's Republic of China***

Comment:

554	483	3/29/1999		Statement of Intent			None	*Other - Energy and Environment	MOU on Clean Energy Projects and Technologies

Title: ***Memorandum of Understanding Among The State Development Planning Commission of the People's Republic of China, China Development Bank, The United States Department of Energy, and Export Import Bank of the United States Regarding Cooperation on Clean Energy Projects and Technologies***

Comment:

642	537	9/10/2002		Statement of Intent			None	Science and Technology	SOI - Clean Energy Technologies

Title: ***Statement of Intent between the Department of Energy of the United States of America and the Municipality of Beijing of the People's Republic of China Concerning Clean Energy Technologies***

Comment:

84	345	2/23/1995		Primary DOE			None	*Other - Bilateral Energy Consultations	Bilateral Energy Consultations

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the State Planning Commission of the People's Republic of China on Bilateral Energy Consultations***

Comment: Desire to conduct bilateral energy consultations by forming a Chinese-American Ministerial Working Group to enhance the understanding of energy issues and promote the exchange of information on energy policies, programs and technologies.

Country: ***Costa Rica***

36	401	5/9/1997	5/9/2002	Statement of Intent			None	Energy Efficiency and Renewable Energy	Electric Transport

Title: ***Statement of Intent by the Ministry of Environment and Energy of Costa Rica and the Department of Energy of the United States of America for Cooperation in the Field of Electric Transport***

Comment:

504	451	11/17/199	11/17/200	Primary DOE			None	Arms Control and Nonproliferation	Sister Lab Arrangement

Title: ***Arrangement for information Exchange and Cooperation in the Area of Peaceful Uses of Nuclear Energy between Argonne National Laboratory and Atomic Energy Commission of Costa Rica***

Comment: ACDA led sister lab.

Country: ***Czech Republic***

4	300	10/22/199	10/22/200	Intergovernmental			None	Science and Technology	Science & Technology

Title: ***Agreement between the Government of the Czech and Slovak Federal Republic and the Government of the United States of America for Scientific and Technological Cooperation***

Comment: Develop, support and facilitate S&T cooperation between cooperating organizations between the two countries in the areas of basic science, environmental protection, medical sciences and health, agriculture, engineering research, energy, natural resources and their useful utilization, standardization, S&T policy and management.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description

Country: *Egypt*

517	463	7/1/1999	7/1/2004	Primary DOE			None	Energy Research and Development	Energy Technology Agreement

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Electricity and Energy of the Arab Republic of Egypt for Cooperation in Energy Technology***

Comment:

527	472	2/23/2000	2/23/2005	Secondary DOE		517	Primary DOE	Energy Efficiency and Renewable Energy	Annex 1 - Renewable Energy

Title: ***Annex I to the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Electricity and Energy of the Arab Republic of Egypt in the Field of Renewable Energy***

Comment:

528	473	2/23/2000	2/23/2005	Secondary DOE		517	Primary DOE	Energy Efficiency and Renewable Energy	Annex 2 - Fuel Cells

Title: ***Annex II to the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Electricity and Energy of the Arab Republic of Egypt for Cooperation in Energy Technology in the Field of Fuel Cells***

Comment:

Country: *Estonia*

526	471	2/4/2000	2/4/2003	Primary DOE			None	Fossil Energy	Oil Shale Research and Utilization

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Economic Affairs of the Republic of Estonia for Scientific and Technology Cooperation on Oil Shale Research and Utilization***

Comment: Establishes a Joint Coordinating Committee to manage cooperative work under the agreement.

99	353	3/13/1995	3/13/2000	Primary DOE			None	Environmental Restoration and Waste Management	Technical Cooperation in Clean-up Paldiski Site

Title: ***Memorandum of Understanding between the Department of Energy of the United States and the Ministry of Economy of Estonia for Technical Cooperation in the Clean-up of the Paldiski Nuclear Training Site***

Comment: Cooperate and share interests and objectives in environmental restoration and in the safe and effective management of hazardous wastes and the clean-up of the environment at and around the nuclear training site at Paldiski, Estonia.

Country: *European Atomic Energy Community (EURATOM)*

568	490	1/6/1995	1/6/2005	Primary DOE			None	International Safeguards	EURATOM Safeguards

Title: ***Agreement between the European Atomic Energy Community Represented by the Commission of the European Communities and the United States Department of Energy in the field of Nuclear Materials Safeguards Research and Development***

Comment: Auto renewal for five years periods.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
576	490	2/18/1999	2/18/2001	Secondary DOE		568	Primary DOE	International Safeguards	Action Sheet 10 - Tank Analysis

Title: ***Action Sheet 10 - The United States Department of Energy (DOE) and The European Atomic Energy Community represented by The Commission of European Communities (EURATOM) for Computer Code Development for Automated Acquisition and Real-Time Analysis of Volume Measurement Data***

Comment:

612	507	5/14/2001	5/14/2006	Primary DOE			None	Fusion Energy	Fusion Agreement between EURATOM and DOE

Title: ***Agreement for Cooperation between the European Atomic Energy Community Represented by the Commission of the European Communities and the Department of Energy of the United States of America in the Field of Fusion Energy Research and Development***

Comment:

Country: ***European Union***

648	543	5/14/2001	5/14/2006	Primary DOE			None	Science and Technology	Non-Nuclear Energy S&T Agreement

Title: ***Implementing Agreement between the Department of Energy of the United States of America and the European Commission for Non-Nuclear Energy Scientific and Technological Co-operation***

Comment:

Country: ***Finland***

116	393	1/17/1997	1/17/2001	Primary DOE			None	Energy Research and Development	Energy R&D

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Trade and Industry of Finland for Cooperation in Energy Research and***

Comment: Auto renewal for 5 years

Country: ***France***

39	132	10/27/198		Secondary DOE		121	Primary DOE	Environmental Restoration and Waste Management	Radioactive Waste Management--West Valley

Title: ***Statement of Intent between the United States Department of Energy and the French Commissariat a l'Energie Atomique on the West Valley Demonstration Project***

Comment: Cooperate in the areas of treatment of radioactive waste and decontamination and decommissioning activities throughout the course of the DOE Demonstration Project at the Western New York Nuclear Service Center located at West Valley, New York.

40	185	6/20/1986		Secondary DOE		121	Primary DOE	Civilian Radioactive Waste Management	Low-Level Radioactive Waste

Title: ***Statement of Intent between the United States Department of Energy and the French Commissariat a l'Energie Atomique in the Field of Low-Level Radioactive Waste***

Comment: Confirm intent to expand radioactive waste management cooperation in the area of surface and subsurface disposal and storage of low-level radioactive waste, as well as defined activities.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
128	416	12/29/199	12/29/200	Primary DOE			None	Arms Control and Nonproliferation	Material Control and Accounting
	Title:	***Agreement between the Department of Energy of the United States and the Commissariate a l'Eenergie Atomique of France Concerning Research and Development in the Field of Nuclear Material Control and Accounting Measures***							
	Comment:	Cooperate on research, development, testing and evaluation in the area of nuclear material control and accounting measures.							
577	416	1/20/2000	1/20/2001	Secondary DOE		128	Primary DOE	Arms Control and Nonproliferation	Action Sheet 2 - Isotopic Analysis Evaluation Using the PC/FRAM Physics Isotopics Software
	Title:	***Action Sheet No. 2 The United States Department of Energy (DOE) and The Commissariat a I'Energie Atomique (CNEA) of France for Isotopic Analysis Evaluation Using the PC/FRAM Physics Isotopics Software***							
	Comment:								
129	417	12/29/199	12/29/200	Primary DOE			None	Arms Control and Nonproliferation	Physical Protection of Nuclear Materials
	Title:	***Agreement between the Department of Energy of the United States and the Commissariat a l'Energie Atomique of France Concerning Research and Development in the Field of Physical Protection of Nuclear Materials and Facilities***							
	Comment:	Improve the US & France nuclear materials and facilities physical protection procedures							
567	417	3/14/2000	3/14/2002	Secondary DOE		129	Primary DOE	International Safeguards	Action Sheet 3 - Nuclear Materials Transportation Security
	Title:	***Action Sheet No. 3 The United States Department of Energy (DOE) and the Commissariat a l'Energie Atomique of France (CEA) for Nuclear Transportation Security***							
	Comment:								
130	357	4/26/1995	4/26/2005	Primary DOE			None	High Energy Physics	Accelerator Driven Technology
	Title:	***Agreement between the Department of Energy and the Commissariat a l'Energie Atomique for Cooperation in Research Development and Application for Accelerators driven Technology***							
	Comment:	Conduct cooperative program of scientific and technical engineering in research, development and application for accelerator driven technology							
131	377	9/20/1995	9/20/2000	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management
	Title:	***Agreement between the United States Department of Energy and the French Commissariat a l'Energie Atomique in the field of Radioactive Waste Management***							
	Comment:	Cooperation in the management of radioactive wastes for the purpose of minimizing the consequences of radioactive contamination on health and environment and promoting the safe and economic application of nuclear energy. Cooperation includes: characterization of geologic formations; field/laboratory testing; preparation/packaging of radioactive wastes; disposal in geologic formations; environmental and safety issues, etc.							
132	379	10/8/1995	10/8/2000	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management
	Title:	***Agreement between the United States Department of Energy and the National Radioactive Waste Management Agency of France in the Field of Radioactive Waste Management***							
	Comment:	Cooperate for purposes of minimizing consequences of radioactive contamination on health and environment and promoting safe and economic application of nuclear energy.							

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
564	487	5/9/2000	5/9/2005	Primary DOE			None	Defense Programs	DOE/DGA Emerging Technologies
	Title:	***Technical Arrangement between the Department of Energy of the United States of America and the Minster of Defense of the French Republic Concerning Cooperation in the Application of Emerging Technologies***							
	Comment:	Auto Renewal for 5 year periods.							
582	257	8/9/1994	8/9/2004	Primary DOE			None	Defense Programs	1994- High Energy Lasers
	Title:	***Agreement between the Department of Energy of the United States of America and the Commissariat a l'Energie Atomique of France of Cooperation in Research, Development and Applications of High Energy Lasers and high Energy Laser-Mater Interaction Physics***							
	Comment:								
316	342	11/19/199		Secondary DOE		582	Primary DOE	Defense Programs	Megajoule-Class Solid State Lasers - IA #1
	Title:	***Implementing Arrangement I between the United States Department of Energy and the French Atomic Energy Commission concerning Sharing of Science and Technology Information Related to Megajoule-class Solid State Lasers***							
	Comment:	Sharing of specific S&T information related to megajoule-class solid state lasers.							
317	343	11/19/199	8/9/2004	Secondary DOE		582	Primary DOE	Defense Programs	Megajoule-Class Solid State Laser Technology - IA
	Title:	***Implementing Arrangement #2 between the United States Department of Energy and the French Commissariat a l'Energie Atomique on Cooperation in Megajoule-Class Solid State Laser Technology***							
	Comment:	Implement cooperative activities in research and development in megajoule-class solid state laser technology (high-power, high-energy solid state lasers and target experimental chambers and support							
601	496	9/18/2000	9/18/2005	Primary DOE			None	Nuclear Energy	Advanced Nuclear Reactor
	Title:	***Agreement between The Department of Energy of the United States of America and The Commissariat A L'Energie Atomique of France for Cooperation in Advanced Nuclear Reactor Science and Technology***							
	Comment:								
635	530	7/9/2001	7/9/2006	Secondary DOE		601	Primary DOE	Nuclear Energy	Advanced Nuclear Reactor Science and Technology (I-NERI)
	Title:	***Implementing Arrangement No. 1 under the Agreement between the Department of Energy of the United States of America and Commissariat A L'Energie Atomique of France for Cooperation in Advanced Nuclear Reactor Science and Technology***							
	Comment:	International Nuclear Energy Research Initiative							
629	524	1/2/2002	1/2/2007	Statement of Intent			None	Exchange of Information on Research in Life Sciences	SOI between DOE and France
	Title:	***Statement of Intent Between the Department of Energy of the United States of America and the Commissariat A' L'Energie Atomique of France Concerning Exchange of Information on Research in Life Sciences***							
	Comment:								
630	525	3/13/2002	3/12/2007	Primary DOE			None	Computer Sciences	Computer Sciences
	Title:	***Agreement between the Department of Energy of the United States of America and the Commissariat A' L'E'nergie Atomique of France Concerning Cooperation in Computer Sciences***							
	Comment:								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
631	526	3/13/2002	3/13/2007	Primary DOE			None	Fundamental Science	Fundamental Science on Stockpile Stewardship
Title:	***Agreement between the Department of Energy of the United States of America and the Commissariat A' L'E'nergie Atomique of France Concerning Cooperation in Fundamental Science Supporting Stockpile Stewardship***								
Comment:									
650	545	5/23/2002	5/23/2007	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management Agreement
Title:	***Agreement between the Department of Energy of the United States of America and the Commissariat A L'Energie Atomique of France in the field of Radioactive Waste Management***								
Comment:									

Country: ***Germany***

613	508	7/24/2001	7/24/2006	Primary DOE			None	Science and Technology	Agreement between DOE and Germany on Dense Plasma Physics
Title:	***Implementing Agreement between the Federal Ministry of Education and Research of the Federal Republic of Germany and the Department of Energy of the United States of America on Collaboration in the Field of Dense Plasma Physics***								
Comment:									
88	419	2/20/1998	2/20/2003	Primary DOE			None	Energy Research and Development	Energy Research
Title:	***Agreement Between the Department of Energy of the United States of America and the Federal Ministry of Education, Science, Research and Technology of the Federal Republic of Germany on Cooperation in Energy Research, Science and Technology, and Development***								
Comment:	Auto renewal for 5 year periods. Broad-based umbrella agreement to allow formal cooperation in various program areas								
480	434	5/12/1998	5/12/2001	Secondary DOE		88	Primary DOE	Environmental Restoration and Waste Management	Project: Transportation of Rad Waste
Title:	***Project Agreement between the Department of Energy of the United States of America and the Federal Institute for Material Research and Testing of the Federal Republic of Germany: Technical Exchange and Cooperation on Transportation Requirements in the Field of Management of Radioactive Waste***								
Comment:									
93	31	9/27/1977		Primary DOE			None	Arms Control and Nonproliferation	Nuclear Materials Safeguards/Physical Security
Title:	***Agreement between the United States Department of Energy and the Federal Minister for Research and Technology of Germany Cooperate in the field of Nuclear Material Safeguards and Physical Security Research and Development***								
Comment:	Open-end expiration date								

Country: ***Ghana***

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
149	392	10/1/1996	10/1/2001	Primary DOE			None	Energy Research and Development	Energy Policy, S&T and Development

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Mines and Energy of the Republic of Ghana on Cooperation in Energy Policy, Science and Technology, and, Development***

Comment: Facilitate and establish cooperative activities in such areas as: energy efficiency and renewable energy; fossil energy, including natural gas, liquefied petroleum gas, and clean coal technologies; environmental management, including utilization of energy technologies, particularly cost-effective technologies aimed at reducing emissions of greenhouse gases and minimizing environmental impacts; independent power project development, etc.

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
330	399	2/27/1997	2/27/2001	Secondary DOE		149	Primary DOE	Energy Efficiency and Renewable Energy	Industrial Assessment Center

Title: ***Implementing Arrangement Between the Department of Energy of the United States of America and the Ministry of Mines and Energy of the Republic of Ghana: Exchange of Information, Technical Assistance and Collaboration for the Establishment of the Industrial Assessment Center at the University of Science and Technology in Kumasi, Ghana***

Comment:

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
43	378	9/29/1995		Statement of Intent			None	Energy Efficiency and Renewable Energy	Energy Efficiency and Renewable Energy

Title: ***Statement of Intent between the Department of Energy of the United States and the Ministry of Mines and Energy of the Republic of Ghana to Cooperate in the Fields of Energy Efficiency and Renewable Energy***

Comment: Exchanging experience and views on opportunities for the utilization of energy efficiency and renewable energy technologies.

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
44	380	10/30/199		Primary DOE			None	Nuclear Energy	Peaceful Uses of Nuclear Energy

Title: ***Memorandum of Understanding for the Exchange of Technical Information and for Cooperation in the Field of Peaceful Uses of Nuclear Energy between the Ghana Atomic Energy Commission and Argonne National Laboratory***

Comment: Establish the basis for a cooperative institutional relationship for the exchange of S&T information regarding the peaceful uses of atomic energy. This is between Ghana Atomic Energy Commission and ARGONNE NATIONAL LAB)

Country: *India*

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
615	510	9/13/2000	9/13/2005	Primary DOE			None	Energy Efficiency and Renewable Energy	MOU between DOE and India concerning Energy Consultations

Title: ***Memorandum of Understanding between the Ministry of Power of the Republic of India and the Department of Energy of the United States of America Concerning Energy Consultations***

Comment:

Country: *Israel*

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
156	384	2/1/1996	2/1/2001	Primary DOE			None	Energy Efficiency and Renewable Energy	Energy Cooperation

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Energy and Infrastructure of Israel Concerning Energy Cooperation***

Comment: Establish a framework for collaboration in energy R&D activities including: solar energy; biomass; energy efficiency; wind energy; fossil energy, including oil, gas and coal; electric power production and transmission. Annex I on Intellectual Property and Annex II on Security Obligations are attached. Discussion underway in clean coal technology and electric vehicles.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
530	475	2/22/2000		Statement of Intent			None	Arms Control and Nonproliferation	SOI on Nonproliferation, Arms Control and Regional Security

Title: ***Letter of Intent between the Department of Energy of the United States of America and the Atomic Energy Commission of Israel on cooperation in the Fields of Non-Proliferation, Arms Control, and Regional Security***

Comment:

617	512	10/23/200	10/23/200	Primary DOE			None	Energy Efficiency and Renewable Energy	Cooperation in the Field of High Temperature Superconductivity

Title: ***Implementation Agreement 3 between the Department of Energy of the United States of America and the Ministry of National Infrastructure of the State of Israel for Cooperation in the Field of High Temperature Superconductivity***

Comment:

Country: *Italy*

160	358	5/26/1995	5/26/2000	Primary DOE			None	Energy Research and Development	Energy R&D

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Italian Republic in the Field of Energy Research and Development***

Comment: continues 1985 MOU in Energy R&D

344	358	5/7/1997		Secondary DOE		160	Primary DOE	Fossil Energy	Annex 3 - Fossil Energy

Title: ***Annex III to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Republic of Italy to Cooperate in the Field of Fossil Energy***

Comment: Two additional areas were added in March 1998;fuel cells for power applications and externally fired combined cycle systems

345	358	3/24/1998	3/24/2003	Secondary DOE		160	Primary DOE	Energy Efficiency and Renewable Energy	Annex 4 - Advanced Geothermal Technology

Title: ***Annex IV to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and handicraft of the Republic of Italy in the Field of Energy Research and Development for Cooperation on Advanced Geothermal Technology***

Comment: Provides for collaboration between Ladrello and the Geyser Geothermal Facilities

346	358	3/24/1998	3/24/2008	Secondary DOE		160	Primary DOE	Energy Efficiency and Renewable Energy	Annex 5 - Biomass Energy

Title: ***Annex V to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Republic of Italy in the Field of Energy Research and Development for Cooperation in the Field of Biomass Energy***

Comment: Information Exchange on biomass systems. Task sharing on hot gas clean-up for medium-scale gasifiers.

347	358	3/24/1998	3/24/2008	Secondary DOE		160	Primary DOE	Energy Efficiency and Renewable Energy	Annex 6 - Photovoltaic Technology

Title: ***Annex VI to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Republic of Italy in the Field of Energy Research and Development for Cooperation in the Field of Photovoltaic Technology***

Comment: Info exchange on reducing manufacturing costs of PV cells. Cooperation on guidelines for building integrated PV systems.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
492	444	7/10/1998	7/10/2003	Secondary DOE		160	Primary DOE	Energy Research and Development	Annex 7 - Electric and Hybrid Vehicles
Title:	***Annex VII to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Republic of Italy in the Field of Energy Research and Development for Cooperation in the Field of Electric and Hybrid Vehicles***								
Comment:	Remains in force for 5 years or until the Agreement expires, whichever is sooner.								
7	323	10/4/1993	10/4/2003	Intergovernmental			None	Science and Technology	Gov't to Gov't S & T
Title:	***Agreement between the Government of the United States of America and the Government of the Italian Republic for Scientific and Technological Cooperation***								
Comment:	Science and Technology agreement between the United States and the Government of Italy which allows U.S. Government agencies to undertake cooperation in their respective areas of responsibility. Renewed last in 1998.								
46	323	10/31/198		Statement of Intent		7	Intergovernmental	Information and/or Personnel Exchange	Synchrotron Light Source
Title:	***Protocol of Intent of Intent between the Department of Energy of the United States of America and the Ministry of the University and of Scientific and Technological Research of the Republic of Italy***								
Comment:									

Country: ***Japan***

251	385	5/3/1996	5/3/2001	Primary DOE		10	Intergovernmental	Science and Technology	DOE/STA Basic Science & Technology
Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Science and Technology Agency of Japan in the Field of Basic Science and Technology***								
Comment:	Determine cooperation on joint projects in the field of basic S&T which may include nuclear physics; synchrotron radiation; medical application of the radiation produced by accelerators; spin physics program at the Relativistic Heavy Ion Collider and biologic effects of radiation.								
166	195	12/3/1986	12/2/2001	Primary DOE			None	Nuclear Energy	Radioactive Waste Management
Title:	***Agreement between the United State Department of Energy and the Power Reactor and Nuclear Fuel Development Corp of Japan in the Area of Radioactive Waste Management***								
Comment:	Study topics and develop cooperatively and jointly technology and techniques necessary for the safe management of radioactive wastes.								
511	195	7/17/1998	7/17/2000	Secondary DOE		166	Primary DOE	Civilian Radioactive Waste Management	Project Annex on Engineered Barriers
Title:	***Project Annex for Cooperation in Near-Field Performance and Analyses on the Long-Term Behavior of the Engineered Barriers under the Agreement between the Department of Energy of the United States of America and the Power Reactor and Nuclear Fuel Development Corporation Japan in the Area of Radioactive Waste Management***								
Comment:									
395	365	2/19/1997	5/19/2000	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 30 - Randomized Inspection (PNC)
Title:	***Action Sheet PNC 30 The United States Department of Energy (DOE) and The Power Reactor and Nuclear Fuel Development Corporation of Japan (PNC) for Joint Study of Improved Safeguards Methodology Using Non-Notice Randomized Inspection***								
Comment:									

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
545	365	12/18/199	12/18/200	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 37 - A-MAGB at Plutonium Fuel Production Facility
Title:	***Action Sheet 37 between the United States Department of Energy (DOE) and the Japan Nuclear Cycle Development Institute (JNC) for Development of Plutonium Isotopic Systems for Measuring Containers in the Advanced Material Accountancy Glove Box at PFPF***								
Comment:									
546	365	12/18/199	12/18/200	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 38 - Remote Monitoring for Tokai
Title:	***Action Sheet 38 between the United States Department of Energy (DOE) and the Japan Nuclear Cycle Development Institute (JNC) for Development of Remote Monitoring for Tokai Vitrification Facility Safeguards System***								
Comment:									
547	365	3/12/1999	3/12/2002	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 39 - Radiation Sensor Monitors at
Title:	***Action Sheet 39 between The United States Department of Energy (DOE) and The Japan Nuclear Cycle Development Institute (JNC) for Development of Radiation Sensor Monitors to Improve Dual C/S at Monju Reactor Core***								
Comment:									
548	365	3/22/1999	3/22/2002	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 40 - Isotope Dilution Gamma-Ray Spectrometry
Title:	***Action Sheet (40) between The United States Department of Energy (DOE) and The Japan Nuclear Cycle Development Institute (JNC) for Joint Research and Development Study of the Metrology of the Isotope Dilution Gamma-Ray Spectrometry (IDGS)***								
Comment:									
549	365	3/24/1999	9/24/2000	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 41 Conceptual Design for RETF Safeguards System Phase 2.
Title:	***Action Sheet 41 between The Japan Nuclear Cycle Development Institute (JNC) And The United States Department of Energy (DOE) For Joint Study on the Conceptual Design for the RETF Safeguards System (Phase-2)***								
Comment:									
173	356	4/11/1995	4/11/2005	Primary DOE			None	Nuclear Energy	Nuclear Reactor Technologies R&D
Title:	***Memorandum of Understanding between the United States Research and Development Organizations and the Japanese Research Organizations for Cooperation in Nuclear Reactor Technologies Research and Development***								
Comment:	Provide a vehicle for cooperation between DOE and its national laboratories, EPRI and the Advanced Reactor Corporation, and the Japanese R&D Organizations, including PNC, JAPC , JAERI and CRIEPI to cooperate in nuclear reactor technologies R&D.								
174	362	7/17/1995	7/17/2005	Primary DOE			None	Nuclear Energy	Nuclear Research and Development - JAERI
Title:	***Agreement between the Department of Energy of the United States of America and the Japan Atomic Energy Research Institute in the Field of Nuclear Research and Development***								
Comment:	Cooperation to conduct programs associated with nuclear R&D in such areas as basic nuclear S&T, nuclear safety, and advanced nuclear technologies.								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
397	428	4/23/1998	4/23/2001	Secondary DOE		174	Primary DOE	High Energy Physics	Collaborative program for target development for high power spallation neutron sources
Title:	***Specific Memorandum of Agreement between the Japan Atomic Energy Research Institute and the Department of Energy of the United States of America for Collaborative Program of Target Development for High Power Spallation Neutron Sources***								
Comment:	Work will be preformed at the Alternating Gradient Synchrotron facility at Brookhaven National Laboratory								
481	435	6/9/1997	6/9/2007	Secondary DOE		174	Primary DOE	Arms Control and Nonproliferation	SMA - Safeguards
Title:	***Specific Memorandum of Agreement Between the Japan Atomic Energy Research Institute and the Department of Energy of the United States of America Concerning Research and Development in Nuclear Material Control, Accountancy, Verification and Physical Protection***								
Comment:									
523	468	1/27/2000	1/27/2005	Primary DOE			None	Arms Control and Nonproliferation	DOE/JNC Safeguards Agreement
Title:	***Agreement between the Department of Energy of the United States of America and the Japan Nuclear Cycle Development Institute For Cooperation in Research and Development (R&D) Concerning Nuclear Material Control and Accounting Measures for Safeguards and Nonproliferation***								
Comment:	Improving the efficiency and effectiveness of equipment and techniques for safeguards and nonproliferation to implement policies and procedures pursuant to the non-proliferation treaty.								
550	482	1/27/2000	7/27/2001	Secondary DOE		523	Primary DOE	Arms Control and Nonproliferation	Action Sheet 42 Measurement Methods for Scrap Materials
Title:	***Action Sheet 42 between The Japan Nuclear Cycle Development Institute (JNC) and The United States Department of Energy (DOE) For Investigation of Measurements Methods for Scrap Materials with High Impurities***								
Comment:									
551	482	1/27/2000	1/27/2003	Secondary DOE		523	Primary DOE	Arms Control and Nonproliferation	Action Sheet 43 NDA Techniques at Ningyo
Title:	***Action Sheet 43 between The United States Department of Energy (DOE) and The Japan Nuclear Cycle Development Institute (JNC) for Design Studies and Development of NDA Techniques for In-Process and Waste Invention at the Ningyo Enrichment Plant***								
Comment:									
552	482	1/27/2000	1/27/2002	Secondary DOE		523	Primary DOE	Arms Control and Nonproliferation	Action Sheet 44 - Dry Reprocessing Methods
Title:	***Action Sheet 44 between The Japan Nuclear Cycle Development Institute (JN) and The United States Department of Energy (DOE) for A Joint Study of Safeguards Systems for Dry Reprocessing***								
Comment:									
553	482	1/27/2000	1/27/2003	Secondary DOE		523	Primary DOE	Arms Control and Nonproliferation	Action Sheet 45 Remote Monitoring System at PFPF
Title:	***Action Sheet 45 between The United States Department of Energy (DOE) and The Japan Nuclear Cycle Development Institute (JNC) for Development of the Integrated Remote Monitoring System at the Plutonium Fuel Production Facility in Japan***								
Comment:									

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
597	492	8/22/2000	8/22/2005	Primary DOE			None	Nuclear Energy	Agreement for Nuclear Technologies
	Title:	***Agreement Between The Department of Energy of the United States of America and The Japan Nuclear Cycle Developments Institute in the Field of Nuclear Technologies.***							
	Comment:								
640	535	7/10/2002	7/10/2005	Primary DOE			None	Civilian Radioactive Waste Management	Nuclear Waste Management Organization Agreement (NUMO)
	Title:	***Agreement between the Department of Energy of the United States of America and the Nuclear Waste Management Organization of Japan in the Field of Radioactive Waste Management***							
	Comment:								
643	538	9/2/2002	9/2/2005	Primary DOE			None		Agreement bet. DOE and the Japan Atomic Energy Research Institute
	Title:	***Specific Memorandum of Agreement between the Department of Energy of the United States of America and the Japan Atomic Energy Research Institute on Cooperation in the Field of Synchrotron Radiation Research***							
	Comment:								
653	548	3/19/2003	3/19/2008	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management
	Title:	***Agreement between the Department of Energy of the United States of America and the Japan Nuclear Cycle Development Institute in the Field of Radioactive Waste Management***							
	Comment:								
657	552	8/18/2000	8/18/2005	Amendment		263	None	Fusion Energy	Amendment V
	Title:	***Amendment V to the Agreement between the Japan Atomic Energy Research Institute and the United States Department of Energy on Cooperation in Doublet III Project***							
	Comment:								
8	42	5/2/1979	5/1/2005	Intergovernmental			None	Energy Research and Development	US/Japan Energy and Related Fields Agreement
	Title:	***Agreement between the Government of the United States of America and the Government of Japan on Cooperation in Research and Development in Energy and Related Fields***							
	Comment:	Maintaining and intensifying cooperation in research and development in energy and related fields.							
22	114	1/24/1983	5/1/2005	Broad		8	Intergovernmental	Fusion Energy	Fusion Energy
	Title:	***Exchange of Notes establishing the Cooperation in Fusion Research and Development***							
	Comment:	A cooperative program for the exchange of information, personnel and equipment, and special activities as may be mutually agreed, in various technical areas of fusion energy between DOE and the Ministry of Education, the STA, MONBUSHO, and the MITI, as established by an exchange of diplomatic notes and separate agreements within each organization. Remains in force as long as the Agreement between US-Japan on Cooperation in Research and Development in Energy and Related Fields remains in force.							
255	116	1/25/1983	5/1/2005	Primary DOE		22	Broad	Fusion Energy	Fusion Energy - MITI
	Title:	***Exchange of Letters establishing the MITI-DOE Cooperation in Fusion Research and Development***							
	Comment:	Remains in effect as long as the Exchange of Notes between USA-Japan on Cooperation in Fusion Research and Development							

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
256	117	1/25/1983	5/1/2005	Primary DOE		22	Broad	Fusion Energy	Fusion Energy - STA - Primary DOE agreement
	Title:	***Exchange of Letters establishing the STA-DOE Cooperation in Fusion Research and Development***							
	Comment:	Remains in effect as long as the Exchange of Notes between USA-Japan on Cooperation in Fusion Research and Development							
417	134	11/8/1983	5/1/2005	Secondary DOE		256	Primary DOE	Fusion Energy	Fusion Research and Development - JAERI
	Title:	***Implementing Arrangement between the Japan Atomic Energy Research Institute and the United States Department of Energy on Cooperation in Fusion Research and Development***							
	Comment:	Appoint coordinators to report to Fusion Committee and to cooperate in such areas as plasma-containment devices, such as tokomaks; joint research related to plasma physics; magnetic fusion concepts; magnetic systems for fusion devices; plasma engineering; fusion-reactor materials; fusion-systems engineering; environmental and safety aspects of fusion energy; plasma diagnostics and vacuum technology; and applications of fusion energy.							
463	133	11/8/1983	3/31/2004	Tertiary DOE		417	Secondary DOE	Fusion Energy	Annex 1 - First Wall and Blanket Structural
	Title:	***Annex I to Implementing Arrangement between Japan Atomic Energy Research Institute and U.S. Department of Energy on Cooperation in Fusion Research and Development U.S.-Japan Collaborative Testing of First Wall and Blanket Structural Materials with Mixed Spectrum Fission Reactors***							
	Comment:	JOINT IRRADIATION EXPERIMENTS AND EVALUATION OF RESULTS.							
466	210	6/11/1987	6/11/2001	Tertiary DOE		417	Secondary DOE	Fusion Energy	Annex 4 - Fusion - Fuel Processing
	Title:	***Annex IV to the Implementing Arrangement between the Japan Atomic Energy Research Institute and the United States Department of Energy on Cooperation in Fusion Research and Development for the DOE-JAERI Collaborative Program Technology for Fusion-Fuel Processing***							
	Comment:	Define, conduct, evaluate the joint operation/experiments on fusion fuel technology with TSTA at LANL for the purposes of developing and demonstrating fuel process technology for fusion power systems; developing/testing environmental/personnel protective systems for tritium handling; developing/testing/qualifying equipment and material for tritium services in the fusion energy program,							
471	270	1/11/1990	1/11/2005	Tertiary DOE		417	Secondary DOE	Fusion Energy	Annex 9 - Data Link
	Title:	***Annex IX to the Implementing Arrangement between the Japan Atomic Energy Research Institute and United States Department of Energy on Cooperation in Fusion Research and Development for the DOE-JAERI Collaboration on the Data Link***							
	Comment:	Establish the Data Link to facilitate rapid information exchanges between fusion researchers of the Parties through (1) code development and/or usage; (2) data analysis and/or theory/experiment comparison; (3) access to computers in home countries by visiting scientists for computations related to purpose of visit; (4) administration of the Data Link. VISITS: Yes DURATION: To Be Determined DOE/HQ CONTACT: Arthur Katz, ER-523, (301) 903-4932; FTS: 233-4932							
257	115	1/29/1983	5/1/2005	Primary DOE		22	Broad	Fusion Energy	Fusion Energy - Monbusho - Primary DOE
	Title:	***Exchange of Letters establishing the Monbusho-DOE Cooperation in Fusion Research and Development***							
	Comment:	Remains in effect as long as the Exchange of Notes between USA-Japan on Cooperation in Fusion Research and Development							
419	214	7/17/1987	7/19/2001	Secondary DOE		257	Primary DOE	Fusion Energy	Annex 1 - Irradiation Effects Utilizing Fission
	Title:	***Annex 1 to 01/25/83 exchange of letters between Japan Ministry of Education (Monbusho) and USDOE on cooperation in fusion R&D for collaboration in fundamental studies of irradiation effects in fusion materials utilizing fission***							
	Comment:	JOINT IRRADIATION AND EVALUATION EXPERIMENTS ON MATERIALS							

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
420	258	12/12/198	12/21/200	Secondary DOE		257	Primary DOE	Fusion Energy	Annex 2 - Data Link & Data Link Projects for

Title: ***Annex II to the January 25, 1983 Exchange of Letters between Monbusho of Japan and the Department of Energy of the United States on Cooperation in Fusion Research and Development Monbusho-DOE Collaboration on a data Link and Data Link Projects for Fusion***

Comment: STEERING COMMITTEE MEETING

602	497	1/17/2001	7/19/2007	Secondary DOE		257	Primary DOE	Fusion Energy	Amendment 4 - Annex 1 Fusion Research and Development

Title: ***Amendment 4 of Annex I to the DOE - Monbusho Exchange of Letters on Cooperation in Fusion Research and Development***

Comment:

259	228	10/16/198	5/1/2005	Primary DOE		8	Intergovernmental	Fossil Energy	Coal R&D - AIST and ANRE

Title: ***Implementing Arrangement between the Agency of Industrial Science and Technology and the Agency of Natural Resources and Energy of Japan and the United States Department of Energy in Coal Research and Development***

Comment: Establish comprehensive cooperation in the area of coal energy R&D in order to accelerate development of coal R&D efforts, i.e., coal liquefaction, coal gasification; materials and components for coal conversion and utilization; pollution control technology related to coal conversion and utilization.

262	48	8/24/1979	5/1/2005	Primary DOE		8	Intergovernmental	Fusion Energy	Fusion Energy/Coordinating Committee

Title: ***Exchange of Letters Establishing a Coordinating Committee on Fusion Energy***

Comment: Establish a Coordinating Committee on Fusion Energy to facilitate the coordination and implementation of cooperative activities in the area of fusion as well as to assure proper balance and to ensure the overall planning and oversight of such cooperative activities.

263	50	8/28/1979	8/28/2000	Primary DOE		8	Intergovernmental	Fusion Energy	Fusion Energy/Doublet III

Title: ***Agreement between the United States Department of Energy and the Japan Atomic Energy Research Institute on Cooperation in Doublet III Project***

Comment: Undertake experimental research on tokomak plasmas with doublet and dee-shaped cross-sections in the Doublet III, a tokomak facility, located in LaJolla, California.

264	58	11/11/197	5/1/2005	Primary DOE		8	Intergovernmental	High Energy Physics	High Energy Physics

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Education, Science and Culture of Japan on Cooperation in Field of High Energy Physics***

Comment: Establish a framework for cooperation in the field of high energy physics including research; accelerator and detector instrumentation R&D; the fabrication and subsequent use of new experimental devices and facilities. Remains in forces for the duration of the U.S.-Japan R&D in Energy and Related Fields Agreement signed on May 2, 1979

Country: ***Kazakhstan***

186	402	7/12/1996		Primary DOE			None	Science and Technology	Energy R&D and Tech exchange

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Science-Academy of Sciences of the Republic of Kazakhstan on Scientific Research and Development and Technology Exchange Programs***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
428	402	5/13/1997		Secondary DOE		186	Primary DOE	*Other - Remote Sensing	Remote Sensing Mission
	Title:	***Annex 1 - For the Conduct of the Remote Sensing Mission (AMPS) in the Republic of Kazakhstan***							
	Comment:								
529	474	12/19/200		Primary DOE			None	Arms Control and Nonproliferation	Decommissioning of the BN-350 Reactor
	Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Energy, Industry and trade of the Republic of Kazakhstan Concerning Decommissioning of the BN-350 Reactor***							
	Comment:								

Country: ***Korea, Republic of***

180	389	6/14/1996	6/14/2001	Primary DOE		11	Intergovernmental	Fusion Energy	Fusion Energy Research and Related Fields
	Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for Cooperation in the Area of Fusion Energy Research and Related Fields***							
	Comment:	Promote S&T cooperation in fusion energy research and related fields in order to enhance contributions. Remains in force for 5 years or until termination of the S&T Agreement, whichever occurs first.							
626	521	6/14/2001	6/14/2006	Secondary DOE		180	Primary DOE	Fusion Energy	Extension on the Implementing Arrangement between DOE and Korea
	Title:	***Agreement to Extend the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for Cooperation in the Area of Fusion Energy Research and Related Fields***							
	Comment:								
179	388	6/14/1996	6/14/2001	Primary DOE			None	Nuclear Energy	Cooperative Laboratory Relationship
	Title:	***Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship***							
	Comment:	Cooperate in the field of peaceful uses of nuclear energy including such areas as: nuclear waste management; nuclear safety and environment; nuclear safeguards technology; basic sciences; education; health physics; environmental research related to nuclear technology, etc							
595	388	6/29/2000	6/29/2005	Secondary DOE		179	Primary DOE	Nuclear Energy	Annex 4 - Cintichem Process Technology (first project annex)
	Title:	***Annex 4 Joint Project on Cintichem Technology between the Department of Energy of the United States of America and the Korea Atomic Energy Research Institute under the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship***							
	Comment:								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
608	503	5/16/2001	5/16/2006	Secondary DOE		179	Primary DOE	Nuclear Energy	Annex V - MOU between DOE and Ministry of Science and Technology of the Republic of Korea on I-NERI

Title: ***Annex V to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship on a Collaboration Project Supporting the International Nuclear Energy Research Initiative (INERI)***

Comment:

609	504	5/16/2001	6/14/2001	Secondary DOE		179	Primary DOE	Nuclear Energy	Amendment C to Annex III Participating Institutions to the MOU between DOE and Ministry Science and Technology

Title: ***Amendment C to Annex III - Participating Institutions to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship***

Comment:

644	539	6/14/2001	6/14/2006	Secondary DOE		179	Primary DOE	Science and Technology	Extend and Amend MOU bet. DOE and MOST

Title: ***Agreement to Extend and Amend the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship***

Comment:

639	534	9/17/2002	9/17/2007	Primary DOE			None	Science and Technology	Safeguards Agreement

Title: ***Arrangement between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, Physical Protection, and Advanced Containment and Surveillance Technologies for International Safeguards Applications***

Comment:

Country: ***Mexico***

12	41	6/15/1972		Intergovernmental			None	Science and Technology	Science & Technology

Title: ***Agreement Between the United States of America and Mexico for Scientific and Technical Cooperation***

Comment: Effected by Exchange of Notes Signed at Washington June 15, 1972

270	386	5/7/1996	5/7/2001	Primary DOE		12	Intergovernmental	Energy Research and Development	Energy Cooperation

Title: ***Agreement between the Department of Energy of the United States of America and the Secretariat of Energy of the United Mexican States for Energy Cooperation***

Comment: Develop a framework for cooperation to facilitate establishment of cooperative activities in research, development and commercialization to promote improved use of renewable energy and energy efficiency and fossil energy technologies, giving due consideration to environmental concerns, as well as to exchange, develop, and analyze energy strategies and regulatory criteria and to encourage the promotion of energy trade opportunities.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
483	437	6/10/1998	6/10/2001	Secondary DOE		270	Primary DOE	Energy Efficiency and Renewable Energy	Annex 1 - Renewable Energy
	Title:	***Project Annex 1 Cooperation in the Field of Renewable Energy***							
	Comment:	Project areas under discussion by SNL and CNEA (Mexico National Commission for Energy Savings)							
484	438	6/10/1998	6/10/2001	Secondary DOE		270	Primary DOE	Energy Efficiency and Renewable Energy	Annex 2 - Energy Efficiency
	Title:	***Project Annex 2 Cooperation in the Field of Energy Efficiency***							
	Comment:	Project areas under discussion.							
498	447	10/21/199	10/21/200	Secondary DOE		270	Primary DOE	Environmental Restoration and Waste Management	Annex 3 - Enviro Cooperation in hydrocarbons
	Title:	***Project Annex 3 - Environmental Cooperation in the Field of Hydrocarbons***							
	Comment:	Facilitating work between Mexico Institute of Petroleum and ORNL.							
519	465	12/7/1999	5/7/2001	Secondary DOE		270	Primary DOE	Fossil Energy	Annex 4- Clean Fossil Energy Technologies
	Title:	***Project Annex 4 Cooperation in the field of Clean Fossil Energy Technologies***							
	Comment:	Annex is in force as long as the Agreement is in force.							
610	505	5/7/2001	5/7/2006	Secondary DOE		270	Primary DOE	Science and Technology	
	Title:	***Extension of the Agreement for Energy Cooperation between the Department of Energy of the United States of America and the Secretariat of Energy of the United Mexican States, and its Four***							
	Comment:								
188	405	3/25/1985	3/25/2005	Primary DOE			None	Arms Control and Nonproliferation	Sister Lab Arrangement
	Title:	***Memorandum of Understanding (MOU) for the Exchange of Technical Information and for Cooperation in the Field of Peaceful Uses of Nuclear Energy between the National Institute of Nuclear Research of Mexico and the Los Alamos National laboratory of the United States of America***							
	Comment:	Sister lab arrangement supporting Article IV of the NPT.							
604	499	3/9/2001		Broad			None	Fifth Hemispheric Energy Ministers Meeting	Mexico Declaration
	Title:	***Fifth Hemispheric Energy Ministers Meeting Mexico City, Mexico - March 9, 2001. Mexico Declaration - Energy: A Crucial Factor for Integration and Sustainable Development in the Hemisphere***							
	Comment:								

Country: ***Morocco***

599	494	10/16/200	10/16/200	Primary DOE			None	Energy Efficiency and Renewable Energy	Agreement on Concerning Cooperation in Energy Efficiency and Renewable Energy
	Title:	***Agreement Between The Department of Energy of the United States of America and The Ministry of Industry, Commerce, Energy and Mines of the Kingdom of Morocco Concerning Cooperation in Energy Efficiency and Renewable Energy***							
	Comment:								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
627	522	10/16/200	10/16/200	Secondary DOE		599	Primary DOE	Energy Efficiency and Renewable Energy	Project Annex I - EERE

Title: ***Project Annex I to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce, Energy and Mines of the Kingdom of Morocco Concerning Cooperation in Energy Efficiency and Renewable Energy***

Comment:

647	542	6/3/2002	6/3/2007	Secondary DOE		599	Primary DOE	Energy Efficiency and Renewable Energy	Project Annex 2 - Clean Energy Technologies

Title: ***Project Annex 2 to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce, Energy and Mines of the Kingdom of Morocco Concerning Cooperation in Clean Energy Technologies***

Comment:

Country: *Nigeria*

48	76	7/23/1980		Statement of Intent			None	Energy Research and Development	Energy R&D

Title: ***Memorandum of Intent Concerning Energy Cooperation between the Government of the United States of America and the Government of the Federal Republic of Nigeria***

Comment: Exploit and use conventional sources of energy, develop effective machinery to monitor environmental effects of energy, develop and demonstrate technologies to utilize new and renewable energy sources, training in energy planning and technology and strengthen bilateral relations through increased official cooperation. Formal cooperation never establish

520	466	8/14/1999		Primary DOE			None	*Other - Energy Policy	MOU on Energy Policy

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the Federal Ministry of Power and Steel of the Federal Republic of Nigeria on Energy Policy***

Comment:

Country: *Pakistan*

49	339	9/24/1994		Statement of Intent			None	*Other - Climate Change	Climate Change

Title: ***Joint Statement of Intent between the Department of Energy of the United States of America and the Environment and Urban Affairs Division of the Islamic Republic of Pakistan***

Comment: Enhancing mutual environmental protection, in particular, controlling greenhouse gas emissions to limit potential adverse climate change impacts (Environment and Urban Affairs Division).

50	338	9/24/1994		Statement of Intent			None	Fossil Energy	Statement of Intent w/ Ministry of Petroleum and Natural Resources

Title: ***Statement of Intent between the Department of Energy of the United States of America and the Ministry of Petroleum and Natural Resources, Government of the Islamic Republic of Pakistan***

Comment: Promoting trade, investment and cooperation between U.S. & Pakistan (Min of Petroleum and Natural Resources) public and private-sector entities in the fields of fossil fuels (petroleum and minerals, including coal) and new and renewable energy resources, related infrastructure development, and in the exchange of experience and views on opportunities in these sectors.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
51	340	9/24/1994		Statement of Intent			None	Energy Efficiency and Renewable Energy	Statement of Intent w/ Ministry of Water and Power

Title: ***Statement of Intent between the Department of Energy of the United States of America and the Ministry of Water and Power of the Islamic Republic of Pakistan***

Comment: Promoting trade, investment and cooperation between the U.S. and Pakistan (Ministry of Water and Power) private and public sector entities in the fields of fossil and renewable energy, and in the exchange of experience and views on opportunities for improving energy efficiency and enhancing electricity policy.

Country: ***Palestinian Authority***

535	479	2/22/2000		Statement of Intent			None	Energy Research and Development	Energy Planning SOI

Title: ***Joint Statement of Intent between the Department of Energy of the United States of America and the Palestinian Energy Authority on Cooperation in the Field of Energy***

Comment:

Country: ***Peru***

512	458	6/17/1991	6/16/2001	Primary DOE			None	Arms Control and Nonproliferation	Sister Lab Arrangement

Title: ***Arrangement for the Exchange of Technical Information and for Cooperation in the Field of Peaceful Uses of Nuclear Energy between the Peruvian Institute of Nuclear Energy and the Los Alamos National Laboratory***

Comment:

603	498	3/8/2001		Statement of Intent			None	Cooperation in the Field of Energy	Cooperation in the Field of Energy

Title: ***Joint Statement of Intent between the Department of Energy of the United States of America and The Ministry of Energy and Mines of the Republic of Peru on Cooperation in the Field of Energy***

Comment:

645	540	8/14/2001	8/14/2006	Primary DOE			None	Science and Technology	MOU - Cooperation in the Field of Energy

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Peru on Cooperation in the Field of***

Comment:

Country: ***Philippines***

195	403	6/19/1997	6/19/2002	Primary DOE			None	Information and/or Personnel Exchange	Info Exchange

Title: ***Memorandum of Agreement between the Department of Energy of the United States of America and the Department of Energy of the Republic of the Philippines for the Exchange of Energy***

Comment:

Country: ***Poland***

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
13	224	9/28/1987	9/28/2002	Intergovernmental			None	Science and Technology	Science & Technology

Title: ***Agreement between the Government of the United States of America and the Government of the Polish People's Republic on Cooperation in Science and Technology and its Funding***

Comment: Develop, support and facilitate S&T cooperation on the basis of the principles of equality, reciprocity, and mutual benefit. Joint projects of mutual interest are funded by a fund contributed to by the two governments. Renewed last in 1997.

198	367	8/21/1995	8/21/2000	Primary DOE			None	Environmental Restoration and Waste Management	Environmental Restoration Hazardous Waste Mgmt

Title: ***Agreement for Technical Exchange and Cooperating between the Department of Energy of the United States of America and the Institute for Ecology of Industrial Areas of the Republic of Poland in the Area of Environmental Restoration and Hazardous Waste Management***

Comment: Study topics associated with the safe management of hazardous wastes, e.g., risks associated with human exposure to environmental contamination from chemical and heavy metals in soils; demonstration of technologies or methodologies for soil cleaning; and other areas determined by both parties.

Country: ***Romania***

513	459	3/29/1999	3/26/2004	Primary DOE			None	Arms Control and Nonproliferation	Sister Lab Arrangement

Title: ***Arrangement for Information Exchange and Cooperation in Area of Peaceful Uses of Atomic Energy between United States Department of Energy (DOE) and the Ministry of Industry and Commerce (MIC) - Romania***

Comment: Establishes the basis for a cooperative institutional relationship between the participants for the exchange of scientific and technological and other information regarding the peaceful uses of atomic

Country: ***Russian Federation***

203	395	9/16/1996	9/16/2001	Primary DOE		14	Intergovernmental	Environmental Restoration and Waste Management	Environmental Restoration and Waste Management

Title: ***Memorandum of Cooperation between the Department of Energy of United States of America and the Ministry of the Russian Federation on Atomic Energy in the Fields of Environmental Restoration and Waste Management***

Comment:

211	396	9/16/1996	9/16/2001	Primary DOE		14	Intergovernmental	Nuclear Energy	Nuclear Reactor Safety

Title: ***Memorandum of Cooperation between the United States of America and the Russian Federation in the Field of Civilian Nuclear Reactor Safety***

Comment: replaces MOU in Civilian Nuclear Reactor Safety signed 26 April, 1988

213	397	9/16/1996	9/16/2001	Primary DOE		14	Intergovernmental	Fusion Energy	Magnetic Confinement Fusion

Title: ***Memorandum of Cooperation between the Department of Energy of the United States of America and the Ministry of the Russian Federation on Atomic Energy in the Field of Magnetic Confinement Fusion***

Comment: Focus on Fusion science research and development

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
436	397	9/16/1996	9/16/2001	Secondary DOE		213	Primary DOE	Nuclear Energy	Annex 1
	Title:	***Annex 1 - List of Organizations that could participate***							
	Comment:								
214	398	2/17/1997	2/17/2002	Primary DOE		14	Intergovernmental	*Other - High Energy and Nuclear Physics	Fundamental Properties of Matter
	Title:	***Memorandum of Cooperation in the Field of Research on Fundamental Properties of Matter between the Department of Energy of the United States of America and the Ministry of Atomic Energy and the State Committee for Science & Technologies of the Russian Federation***							
	Comment:	activities coordinated by the Joint Coordinating Committee for Research in the Fundamental Properties of Matter (FCC-FPM)							
15	315	2/18/1993		Intergovernmental			None	Nuclear Energy	Disposition HEU Extracted From Nuclear Weapons
	Title:	***Agreement between the Government of the United States of America and the Government of the Russian Federation Concerning the Disposition of Highly Enriched Uranium Extracted from Nuclear Weapons***							
	Comment:	Conversion of HEU extracted from nuclear weapons resulting from the reduction of nuclear weapons; the establishment of appropriate measures to fulfill the nonproliferation, physical protection, nuclear material accounting and control, and environmental requirements with respect to HEU and LEU.							
202	394	9/16/1996	9/16/2001	Primary DOE			None	*Other - Fuel Cell Technology	RAFCO
	Title:	***Agreement between the Department of Energy of the United States of America and the Ministry of the Russian Federation on Atomic Energy Regarding a Russian-American Fuel Cell Consortium***							
	Comment:	Joint R&D work in fuel cell technology development							
208	324	1/14/1994	1/14/2004	Intergovernmental			None	Environmental Safety Health	Radioactive Contamination Health & Environment
	Title:	***Agreement between the Government of the United States of America and the Government of the Russian Federation on Cooperation in Research on Radiation Effects for the Purpose of Minimizing the Consequences of Radioactive Contamination on Health and the Environment***							
	Comment:	Establish a framework for cooperation in research on radiation effects for the purpose of minimization of the consequences of radioactive contamination on health and the environment. DOE is the Executive Agent and is responsible for coordination of activities to implement the agreement.							
210	360	6/16/1995		Primary DOE			None	Arms Control and Nonproliferation	Nonproliferation of Weapons/Weapons Expertise
	Title:	***Memorandum of Agreement between the Department of Energy of the United States of America and the International Science and Technology Center in the Russian Federation for Cooperation in Approved Projects to Facilitate the Nonproliferation of Weapons and Weapons Expertise***							
	Comment:	Facilitate cooperation under the ISTC agreement including the efforts to reduce or eliminate weapons of mass destruction in a safe and secure manner.							
209	359	6/15/1995		Secondary DOE		210	Primary DOE	Fusion Energy	Annex 1 Weapons Expertise for the Globus-M
	Title:	***Annex I to the Memorandum of Agreement between the Department of Energy of the United States of America and the International Science and Technology Center in the Russian Federation Concerning Cooperation in Approved Projects to Facilitate the Nonproliferation Weapons and Weapons Expertise for the Globus-M Project***							
	Comment:	Cooperate to support the A.F. IOFFE Physics-Technical Institute in the completion of the GLOBUS-M project by participating in the modification (or reconstruction) of the experimental hall of the Institute in order to accommodate the new GLOBUS-M spherical tokomak device and the near-by supporting equipment, the buildings that house all the other device supporting systems, and the connections/conduits between the experimental hall and those buildings needed by the GLOBUS-M project.							

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
536	480	6/22/1999	6/22/2001	Secondary DOE		210	Primary DOE	Fusion Energy	ISTC Annex III -Advanced Diagnostics equipment for Spherical Tokamak Globus-M
Title:	***Annex III to the Memorandum of Agreement between the Department of Energy of the United States of America and the International Science and Technology Center in the Russian Federation Concerning Cooperation in Approved Projects to Facilitate the Nonproliferation of Weapons and Weapons Expertise for Advanced Diagnostics Equipment for Sapherical Tokomak Globus-M (ISTC Project No. 1126)***								
Comment:									
435	328	3/16/1994		Primary DOE			None	Nuclear Energy	Replacement of Russian Pu Production Reactors
Title:	***Protocol of Meeting between the United States and the Russian Federation on the Replacement of Russian Plutonium Production Reactors***								
Comment:	Plan for replacement of plutonium production reactors with alternate energy sources.								
515	461	9/22/1998	9/22/2003	Intergovernmental			None	Arms Control and Nonproliferation	Nuclear Cities Initiative
Title:	***Agreement between the Government of the United States of America and the Government of the Russian Federation on the Nuclear Cities Initiative***								
Comment:	DOE is the US Executive Agent for the carrying out provisions of the agreement. Ministry of the Russian Federation for Atomic Energy is the Executive agent for Russia								
518	464	3/24/1999	3/24/2004	Primary DOE			None	Science and Technology	MOU w/ Russian Academy of Sciences
Title:	***Memorandum of Understanding between the Department of Energy of the United States of America and the Russian Academy of Sciences on Cooperation in Science and Technology***								
Comment:									
565	488	5/15/2000	3/24/2004	Secondary DOE		518	Primary DOE	Environmental Restoration and Waste Management	DOE/RAS Implementing Arrangement 1
Title:	***Implementing Arrangement #1 Under the Memorandum of Understanding between the United States Department of Energy and the Russian Academy of Sciences on Cooperation in Science and Technology - Geologic Analogues, Migration and Accumulation of Radionuclides in Geologic Media***								
Comment:									
590	488	5/16/2000	9/20/2002	Tertiary DOE		565	Secondary DOE	Environmental Restoration and Waste Management	Appendix D - Uranium Mass Transport Phenomena
Title:	***Appendix D Implementing Arrangement #1 of the U.S. Department of Energy/Russian Academy of Sciences Memorandum of Understanding Uranium Mass Transport Phenomena in Fractured Welded Tuffs***								
Comment:									
593	488	5/18/2000	9/30/2003	Tertiary DOE		565	Secondary DOE	Civilian Radioactive Waste Management	Appendix G - Interaction of Actinides and Fission Products
Title:	***Appendix G Implementing Arrangement #1 of the U.S. Department of Energy/Russian Academy of Science Memorandum of Understanding The Interaction of Actinides and Fission Products with Environmental Matrices***								
Comment:									

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
594	488	5/18/2000	9/30/2003	Tertiary DOE		565	Secondary DOE	Civilian Radioactive Waste Management	Appendix H - Actinide Speciation
	Title:	***Appendix H Implementing Arrangement #1 of the U.S. Department of Energy/Russian Academy of sciences Memorandum of Understanding Actinide Speciation in the Environment to Support Safety Assessment of Geologic Repositories and for the Remediation of Contaminated Sites***							
	Comment:								
566	489	5/15/2000	3/24/2004	Secondary DOE		518	Primary DOE	Environmental Restoration and Waste Management	DOE/RAS Implementing Arrangement 2
	Title:	***Implementing Arrangement #2 Under the Memorandum of Understanding between the United States Department of Energy and the Russian Academy of Sciences on Cooperation in Science and Technology - Risk Assessment and Advanced Modeling Regarding Geologic Disposal***							
	Comment:								
589	489	6/2/2000	9/30/2003	Tertiary DOE		566	Secondary DOE	Civilian Radioactive Waste Management	Appendix C - Contaminant Transport Processes in Unsaturated Rocks
	Title:	***Appendix C Implementing Arrangement #2 of the U.S. Department of Energy/Russian Academy of Sciences Memorandum of Understanding Interdisciplinary Fundamental Research to Further Develop the Methods of Describing and Modeling Contaminant Transport Process in Unsaturated Rocks***							
	Comment:								
591	489	5/31/2000	9/30/2002	Tertiary DOE		566	Secondary DOE	Environmental Restoration and Waste Management	Appendix D- Annex A - Chara. Of Contaminated Territories
	Title:	***Annex A of Appendix D Implementing Arrangement #2 of the U.S. Department of Energy/Russian Academy of Sciences Memorandum of Understanding Characterization of Contaminated Territories, Monitoring Network Optimization, and Cost Minimization***							
	Comment:								
592	489	5/31/2000	9/30/2002	Tertiary DOE		566	Secondary DOE	Environmental Restoration and Waste Management	Appendix D - Annex B - Uncertainty Assessment
	Title:	***Annex B of Appendix D Implementing Arrangement #2 under the DOE-RAS Memorandum of Understanding Uncertainty Assessment Through Incorporation of Mathematical Geology in Development of Inverse Flow and Transport Models***							
	Comment:								
605	500	4/25/2001	4/25/2004	Secondary DOE		518	Primary DOE	Science and Technology	Appendix K w/ the Russian Academy of Sciences
	Title:	***Appendix K Under Implementing Arrangement #1 of the Memorandum of Understanding Between the U.S. Department of Energy and Russian Academy of Sciences on Cooperation in Science and Technology***							
	Comment:								
606	501	10/1/2000	10/1/2002	Secondary DOE		518	Primary DOE	Uranium Mass Transport Phenomena in Fractured Welded Tuffs	Appendix D of Implementing Arrangement #1w/ Russian Academy of Sciences MOU
	Title:	***Appendix D Implementing Arrangement #1 of The U.S. Department of Energy/Russian Academy of Sciences Memorandum of Understanding Uranium Mass Transport Phenomena in Fractured Welded Tuffs***							
	Comment:								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
52	302	3/18/1992		Statement of Intent			None	Information and/or Personnel Exchange	Electric Power Technologies
	Title:	***U.S.-Russia Task Force on Cooperation in Electric Power Technologies Joint Statement of Intent***							
	Comment:	Exchange information on developments in the electric power industries and encourage more extensive contacts among experts in this field in both countries.							
537	481	7/24/1998	7/24/2003	Intergovernmental			None	Arms Control and Nonproliferation	Plutonium Management
	Title:	***Agreement between the Government of the United States of America and the Government of the Russian Federation on Scientific and Technical Cooperation in the Management of Plutonium that has been withdrawn from Nuclear Military Programs***							
	Comment:	DOE is the Executive Agent for the US. The agreement establishes the U.S.-Russian Joint Steering Committee on Plutonium Management							
619	514	6/30/2000	6/30/2005	Secondary DOE		607	Primary DOE	Civilian Radioactive Waste Management	Protocol extending the agreement between DOE and Russia
	Title:	***Protocol Extending the Agreement between the Department of Energy of the United States of America and the Federal Nuclear, and Radiation Safety Authority of Russia for Cooperation on Enhancing the Safety of Russian Nuclear Fuel Cycle Facilities and Research Reactors***							
	Comment:	Extending the agreement mention above for five years until June 30, 2005.							
641	536	6/26/200	6/30/2005	Secondary DOE		607	Primary DOE	Arms Control and Nonproliferation	Extension bet. DOE federal Nuclear and Radiation Safety Authority of Russia
	Title:	***Protocol Extending the Agreement between the Department of Energy of the United States of America and the Federal Nuclear and Radiation Safety Authority of Russia to Cooperate on National Protection, Control and Accounting of Nuclear Materials***							
	Comment:								
636	531	4/23/2002		Statement of Intent			None	Science and Technology	Joint Statement of Intent between DOE and Dubna
	Title:	***Joint Statement of Intent between the Department of Energy of the United States of America and the Joint Institute for Nuclear Research at Dubna***							
	Comment:								
658	553	5/8/2002		Primary DOE			None	*Other - Purchases of Pu-238 for Peaceful Purposes	Purchases of Pu-238 for Peaceful Purposes
	Title:	***Joint Announcement by the United States Department of Energy and the Russian Federation Ministry for Atomic Energy Concerning Continued Purchases of Pu-238 for Peaceful Purposes***							
	Comment:								
659	554	7/16/2001	7/16/2006	Secondary DOE		210	Primary DOE	Civilian Radioactive Waste Management	Annex VI
	Title:	***Annex VI to the Memorandum of Agreement between the Department of the United States of America and the International Science and Technology Center in the Russian Federation Concerning Implementation of Projects of the Office of Civilian Radioactive Waste Management***							
	Comment:								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description

Country: *Senegal*

479	433	4/2/1998		Statement of Intent		None		Energy Research and Development	SOI - Energy R&D

Title: ***Memorandum of Understanding between the Republic of Senegal and the United States of America for Cooperation on Energy Policy, Science and Technology, and Research and Development***

Comment:

516	462	3/19/1999	3/19/2004	Primary DOE		None		Energy Research and Development	Energy Policy, S and T, and R and D

Title: ***Agreement between the Department of Energy and the Ministry of Energy, Mines and Industry of the Republic of Senegal on Cooperation in Energy Policy, Science and Technology, Research and Development***

Comment: The objective of this Agreement is to facilitate and establish cooperative activities by the Parties.

Country: *South Africa*

20	368	12/4/1997	12/4/2022	Intergovernmental		None		Nuclear Energy	Peaceful Uses of Nuclear Energy

Title: ***Agreement for Cooperation between the United States of America and the Republic of South Africa Concerning Peaceful Uses of Nuclear Energy***

Comment: Cooperate in the development, use and control of peaceful uses of nuclear energy which must be undertaken with a view to protecting the international environment from radioactive, chemical and thermal contamination. Agreement was signed on 8/25/95 ratified by exchange of diplomatic notes on 12/4/97.

230	369	8/25/1995		Primary DOE		None		Energy Research and Development	Sustainable Energy Development Committee

Title: ***Terms of Reference on the Sustainable Energy Development Committee of the U.S. - South Africa Binational Commission***

Comment:

231	371	8/25/1995		Primary DOE		None		Energy Research and Development	Sustainable Development Resource Center

Title: ***Memorandum of Understanding between the World Wildlife Fund-South Africa, EarthKind International, U.S. Department of Energy and U.S. Agency for International Development on Creating the Sustainable Development Resource Center***

Comment: Cooperate on the creation of the Sustainable Development Resource enter to advance policies and programs on the use of renewable energy and energy efficiency technologies and participation by nongovernmental organization in the decision making process. Other signatories are EarthKind Intl (Jan Hartke) and USAID (Larry Byrne)

232	372	8/25/1995		Primary DOE		None		Energy Efficiency and Renewable Energy	Renewable and Energy Efficiency Technologies

Title: ***Memorandum of Understanding***

Comment: Promotion of renewable energy and energy efficient technologies as a cost-effective means of increasing access to energy of the majority of South Africa disadvantaged population (w/USAID as a partner).

233	374	8/25/1995		Primary DOE		None		Energy Efficiency and Renewable Energy	Electrification of Rural Clinics (Cape Town)

Title: ***Memorandum of Understanding between Sandia National Laboratories of Albuquerque New Mexico, USA and the Independent Development Trust Cape Town, Republic of South Africa***

Comment: Sandia National Lab, as signatory of this MOU, has agreed to co-fund the Independent Development Trust model clinic electrification program and to provide other technical assistance as agreed by mutual consent.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
234	381	12/5/1995	12/5/2000	Primary DOE			None	Energy Research and Development	Energy Policy, S&T and Development

Title: ***Implementing Agreement between the United States Department of Energy and the Department of Mineral and Energy Affairs of South Africa on Collaboration on Energy, Policy, Science, Technology and Development***

Comment: Facilitate and establish cooperative activities in energy policy, science, technology, development and commercialization activities in such areas as: fossil energy, including clean coal; energy planning, efficiency, renewable energy; environmental management; environment enhancing energy technologies; and private power project development

55	423	8/25/1995		Statement of Intent			None	Information and/or Personnel Exchange	Energy Information Exchange

Title: ***Joint Statement of Intent between the Department of Energy of the United States of American and the Department of Mineral and Energy Affairs of the Republic of South Africa on an Energy Information Exchange***

Comment:

56	370	8/25/1995		Statement of Intent			None	Energy Research and Development	Energy Policy, S&T and Development

Title: ***Joint Statement of Intent between the Department of Energy of the United States of American and the Department of Mineral and Energy Affairs of the Republic of South Africa on Energy Policy, Science and Technology, and Development***

Comment: Facilitate joint activities related to energy policy, S&T, development and commercialization in an environmentally and economically sound manner.

57	373	8/25/1995		Statement of Intent			None	Energy Efficiency and Renewable Energy	Renewable Energy (Guguletu Township)

Title: ***Joint Statement of Intent for Integrated Industrial/Educational Development in Guguletu Township between the United States Department of Energy, United States Department of Energy National Laboratories, and the Guguletu RDP Forum***

Comment: Establishment of a light industrial part in Guguletu Township.

58	375	8/25/1995		Statement of Intent			None	Energy Efficiency and Renewable Energy	Renewable Energy (The Csir, South Africa)

Title: ***Statement of Intent on Renewable Energy Technologies between the National Renewable Energy Laboratory, U.S.A. and Sandia national Laboratories, U.S.A. and the CSIR (Council for Scientific and Industrial Research), Republic of South Africa***

Comment: NREL and Sandia, by being signatories of this Statement, have agreed to exchange experience and views on opportunities for the appropriate utilization of renewable energy technologies with The Csir, Republic of South Africa. Witnessed by Secretary O'Leary.

59	383	12/5/1995		Statement of Intent			None	Fossil Energy	Mitigation of Greenhouse Gases

Title: ***Statement of Intent concerning Cooperation in Sustainable Energy Development and the Mitigation of Greenhouse gases between the Republic of South Africa and the United States of America***

Comment: Investigate pilot studies the feasibility of the development of projects which could achieve additional mitigation of climate change by addressing anthropogenic emissions by sources and removal by sinks in an environmentally sound and socially and economically equitable fashion through deployment of greenhouse gas mitigation technologies; education/training programs; diversification of energy sources; conservation, restoration and enhancement of natural carbon sinks, etc.

60	382	12/5/1995		Statement of Intent			None	Energy Research and Development	South Africa/Provincial Gov'ts Cooperation Agreement - Statement of Intent

Title: ***Cooperative Agreement between Provincial Governments of the Republic of South Africa on Regional Cooperation in Energy***

Comment: Intention to cooperate in a manner which will facilitate joint activities related to energy development in an environmentally and economically sound way with the following provincial governments of South Africa: Province of the Free State; Northern Cape Province; Eastern Cape Province

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description

Country: *Spain*

100	404	9/15/1997	9/15/2007	Primary DOE			None	Environmental Safety Health	Research on Radiological Evaluations

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Industry and Energy of the Kingdom of Spain on Cooperation in Research on Radiological Evaluations***

Comment:

307	404	9/15/1997	9/15/2007	Secondary DOE		100	Primary DOE	Environmental Safety Health	Annex 1

Title: ***Project Annex 1 - cooperation on research in radiological evaluations***

Comment: Related to radioactive waste management.

5	171	12/12/198		Primary DOE			None	Science and Technology	Science & Technology

Title: ***Agreement between the United States Department of Energy and the United States-Spain Joint Committee for Scientific and Technological Cooperation***

Comment: Establish responsibilities, guidelines and procedures for evaluating, funding and coordinating research proposals, projects and related activities in the field of energy selected and funded by the US-Spain Joint Committee for S&T Cooperation.

596	491	7/15/2000	7/15/2006	Primary DOE			None	Energy Research and Development	MOU for Energy Cooperation

Title: ***Memorandum of Understanding Between The Ministry of Science and Technology of the Kingdom of Spain and The Department of Energy of the United States of America Concerning Cooperation in Energy***

Comment:

Country: *Sweden*

218	235	2/11/1988		Primary DOE			None	*Other - Classified	Subject and Umbrella contents are classified

Title: ***Subject and Umbrella contents are classified***

Comment: Description not available in History

580	442	10/23/199	10/23/200	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management

Title: ***Agreement between the United States Department of Energy and the Swedish Nuclear Fuel and Waste Management Company Concerning a Cooperative Program in the Field of Radioactive waste Management***

Comment:

Country: *Switzerland*

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
225	418	12/23/199	12/23/200	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management

Title: ***Agreement between the Department of Energy of the United States of America and the National Cooperative for the Disposal of Radioactive Waste in Switzerland in the Field of Radioactive Waste Management***

Comment: Auto extension for 5 yr. Periods.

Country: ***Thailand***

227	400	3/20/1997		Primary DOE			None	Arms Control and Nonproliferation	Lab-to-Lab arrangement

Title: ***Arrangement for the Exchange of Technical Information and for Cooperation in the Field of Peaceful Uses of Nuclear Energy between the Office of Atomic Energy for Peace of Thailand and the United States Department of Energy***

Comment: Open ended.

538	400	3/6/2000		Secondary DOE		227	Primary DOE	Arms Control and Nonproliferation	Action Sheet 1 - Preliminary Safety Anaysis Report

Title: ***Action Sheet 1 between the Office of Atomic Energy for Peace of Thailand and the United States Department of Energy for Preliminary Safety Analysis Report Review***

Comment:

Country: ***Turkey***

624	519	3/20/2002	3/20/2007	Primary DOE			None	Science and Technology	Cooperation in Energy Technology

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Energy and Natural Resources of the Republic of Turkey for Cooperation in Energy Technology***

Comment:

625	520	3/20/2002	3/20/2002	Secondary DOE		624	Primary DOE	Science and Technology	Annex 2 - Cooperation in the Field of Coal and Power Systems

Title: ***Annex 2 to the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Energy and Natural Resources of the Republic of Turkey for Cooperation in the Field of Coal and Power Systems***

Comment:

Country: ***Ukraine***

507	454	4/26/1996		Intergovernmental			None	*Other - Radioactive Waste	Chernobyl Center

Title: ***Memorandum of Understanding on Participation In and Support of the Activities of the International Chernobyl Center on Nuclear Safety, Radioactive Waste and Radioecology***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
508	455	7/22/1998	7/22/2003	Intergovernmental			None	*Other - Radioactive Waste	Int'l Radioecology Lab
Title:	***Agreement between the Government of the United States of America and the Government of Ukraine Concerning the International Radioecology Laboratory of the International Chernobyl Center on Nuclear Safety, Radioactive Waste and Radioecology***								
Comment:	Department of Energy is the Executive Agent								
510	457	5/6/1998	5/4/2028	Intergovernmental			None	Nuclear Energy	US-Ukraine PNC
Title:	***Agreement for Cooperation between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy***								
Comment:									
54	330	4/8/1994		Statement of Intent			None	Nuclear Energy	Shutdown Chernobyl Nuclear Power Plant
Title:	***Joint Statement About Paths to the Soonest Possible Shutdown of the Chernobyl Nuclear Power Plant***								
Comment:	Undertake near-term joint analysis of options for earliest possible closure of the Chernobyl power plant.								

Country: ***United Kingdom***

41	364	7/25/1995		Statement of Intent			None	Environmental Restoration and Waste Management	Nuclear Clean-Up
Title:	***Heads of Agreement for Cooperation Between the United States Department of Energy and the United Kingdom Department of Trade and Industry on their Perspective Program for Nuclear Clean-up***								
Comment:	Cooperate, through sharing of information, on similar issues associated with nuclear decommissioning and clean-up								
42	390	9/5/1996		Statement of Intent			None	Environmental Restoration and Waste Management	Environmental Restoration and Waste Management
Title:	***Statement of Intent between the United States Department of Energy and the United Kingdom Department of Trade and Industry***								
Comment:	Establish framework for cooperation in R&D of technologies for the treatment, packaging, disposal of aluminum-based spent nuclear fuel.								
598	493	11/6/2000	11/6/2010	Primary DOE			None	Energy Research and Development	MOU on Energy Research and Development
Title:	***Memorandum of Understanding Between The Department of Energy of the United States of America and The Department of Trade and Industry of the United Kingdom of Great Britain and Northern Ireland on Collaboration in Energy Research and Development***								
Comment:	Provides for cooperation in Fossil Energy, Energy Efficiency, Renewable Energy and the waste-related management and the environment.								
634	529	11/17/200	11/17/200	Secondary DOE		598	Primary DOE	Environmental Management	AEA Technology plc
Title:	***Implementing Arrangement between the Department of Energy of the United States of America and AEA Technology plc Under the Memorandum of Understanding on Energy R&D between the Department of Energy of the United States of America and the Department of Trade and Industry of the United Kingdom of Great Britain and Northern Ireland***								
Comment:									

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
611	506	9/17/2001	9/17/2006	Primary DOE			None	Nuclear Verification Technologies	MOU between DOE and the Department of Trade and Industry of the United Kingdom

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the Department of Trade and Industry of the United Kingdom of Great Britain and Northern Ireland Concerning the Development and Implementation of Nuclear Verification Technologies***

Comment:

637	532	7/25/2002	7/25/2007	Primary DOE			None	Science and Technology	Implementing Agreement between DOE and Great Britain

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Secretary of State for Defense of the United Kingdom of Great Britain and Northern Ireland for Cooperation in Research and Development of Chemical and Biological Weapons Detection and Protection-Related Technologies***

Comment:

638	533	7/3/2002	7/3/2007	Primary DOE			None	Science and Technology	Gov't to Gov't agreement between US and Great Britain

Title: ***Agreement between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland for Cooperation in Research and Development of Weapons Detection and Protection-Related Technologies***

Comment:

652	547	3/10/2003	3/10/2008	Primary DOE			None	Fossil Energy	Cooperation in the Field of Fossil Energy

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Department of Trade and Industry of the United Kingdom of Great Britain and Northern Ireland to Cooperate in the Field of Fossil Energy Technology***

Comment:

143	278	6/11/1990	6/11/2000	Primary DOE			None	Energy Research and Development	Energy R&D

Title: ***Memorandum of understanding between the U.S. Department of Energy and the Department of energy of the United Kingdom of Great Britain and Northern Ireland on collaboration in energy research and development***

Comment: To continue and maximize cooperation in energy research and development.

Country: ***Uzbekistan***

628	523	3/12/2002		Primary DOE			None	Arms Control and Nonproliferation	Proliferation of Nuclear Materials and Technologies

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Foreign Affairs of the Republic of Uzbekistan Concerning Cooperation in the area of Prevention of Proliferation of Nuclear Materials and Technologies***

Comment:

Country: ***Venezuela***

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
228	408	10/13/199	10/13/200	Primary DOE			None	Energy Research and Development	Energy Cooperation
Title:	***Agreement for Energy Cooperation between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela***								
Comment:	Supersedes the March 6, 1980 Energy R&D agreement								
443	73	7/10/1980	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Project Annex 1 - Crude Characterization
Title:	***Project Annex I between the Department of Energy of the United States of America and the Ministry of Energy and Mines of Venezuela for the Joint Characterization of Heavy Crude Oils***								
Comment:	Exchange published technical information and jointly modify or develop new techniques for the characterization of heavy crude oil and heavy ends.								
444	82	9/29/1980	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Project Annex 4 - Enhanced Oil Recovery Thermal Processes
Title:	***Project Annex IV between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela in the Area of Enhanced Oil Recovery Thermal Process***								
Comment:	Cooperate in the application of additives to steam injection for the recovery of heavy oil thereby further efforts on the understanding of the thermal processes and the reservoir and its fluids where these processes are conducted.								
445	137	3/14/1984	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Project Annex 10 - Training of Petroleum Engineers
Title:	***Project Annex X between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela for On-Site Training of Petroleum Engineers***								
Comment:	Training of Venezuelan petroleum engineers at Elks Hills Naval Petroleum Facility.								
446	264	2/16/1989	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Project Annex 14 - Exchange of Energy-Related Personnel
Title:	***Project Annex XIV between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela for the Exchange of Energy-Related***								
Comment:	DOE and MEMV shall cooperate in using their good offices and taking all reasonable steps to facilitate the exchange of energy-related personnel between Venezuela and the U.S. in the areas of fossil								
447	333	4/26/1994	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Project Annex 15 - Oil Recovery Information and Tech. Transfer
Title:	***Implementing Agreement XV to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela in the Area of "Oil Recovery Information and Technology Transfer"***								
Comment:	Evaluate past and ongoing improved oil recovery projects in US and Venezuela; Data base compilation and exchange								
499	448	8/15/1995	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Annex 16 - Oil and Petrochemical Ecology and Environmental Research
Title:	***Implementing Agreement XVI to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela in the Area of Oil and Petrochemistry Ecology and Environmental Research***								
Comment:	Information exchange, biotechnology update and analysis of industrial and environmental trends.								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
500	449	9/7/1995	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Annex 17 - Drilling Technology

Title: ***Implementing Agreement XVII to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela in the Area of Drilling Technology***

Comment: Exchange information and training of personnel on drilling technologies for more efficient and cost-effective methods drilling.

633	528	8/9/2001	8/9/2006	Secondary DOE		228	Primary DOE	Fossil Energy	Project Annex No. XVIII - Natural Gas Technologies

Title: ***Project Annex No. XVIII to the Agreement for Energy Cooperation between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Bolivarian Republic of Venezuela in the area of Natural Gas Technologies***

Comment:

**Part III - List of Documents,
Exhibits, And Other Attachments**

Section J

Appendix H

Department of Energy Office of Science
Mission Stretch Goal(s) Performance Evaluation and Measurement Plan

APPENDIX H

MISSION STRETCH GOAL(S) PERFORMANCE EVALUATION AND MEASUREMENT PLAN

FY 2004 - 2007

MISSION STRETCH GOAL(S) PERFORMANCE EVALUATION AND MEASUREMENT PLAN

for

Management and Operations of the

Pacific Northwest National Laboratory

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I. INTRODUCTION

This document describes the Mission Stretch Goal(s) developed to incentivize Battelle's (hereafter referred to as "the Contractor") performance in several specific programs carried out within the Pacific Northwest National Laboratory (hereafter referred to as "the Laboratory") for the evaluation period from October 1, 2003, through September 30, 2007. Mission stretch goals identify multi-year, specific exceptional results that the Contractor is incentivized to achieve over the duration of the contract. These goals are designed to inspire enhanced Contractor performance above and beyond that which is expected to be accomplished in meeting program goals within the annual performance evaluation and measurement plan (Appendix E). The commitment or use of existing or new programmatic funds as appropriate to accomplish stretch goals is neither required nor precluded. The intent is to encourage the Contractor to undertake extraordinary efforts to reach truly exceptional performance. Three programs within the Department of Energy (DOE) Headquarters (HQ) Office of Science (SC) have been identified and are listed below. Although these programs represent the current set of mission stretch goals for the contract period identified above, other DOE HQ program offices (i.e., EM, NA, IN, CN, EE, FE) may identify additional mission stretch goals, which upon agreement of the parties would be added to this appendix via formal modification of the contract; provided, however, that if the parties cannot reach agreement on such mission stretch goals, objectives, and/or performance measures, the Contracting Officer shall have the unilateral right to establish reasonable new mission stretch goals, objectives, and/or performance measures.

- Biological and Environmental Research (BER): 79%
- Basic Energy Sciences (BES): 14%
- Advanced Scientific Computing Research (ASCR): 7%

The weightings for the above mission stretch goals were calculated based on FY 2002 data provided in the FY 2002 – FY 2006 PNNL Institutional Plan dated January 2002. The numbers represent the percentage of each individual program's funding at the Laboratory relative to the others.

This document also describes the distribution of the total available mission stretch goal incentive fee and the methodology for determining the amount of fee earned by the Contractor as stipulated within the clauses entitled, "Determining Total Available Mission Stretch Goal(s) Incentive Fee and Fee Earned," "Conditional Payment of Fee, Profit, or Incentives," and "Total Available Fee: Base Fee and Performance Fee Amount." In partnership with the Contractor and key customers, the DOE HQ program office(s) and the Richland Operations Office (RL) have defined the mission stretch goals that serve as incentives to extend the Contractor's otherwise outstanding performance in each of the critical areas identified for the future of the Laboratory.

The overall performance against this mission stretch goal plan will be utilized to determine the amount of the total available mission stretch goal incentive fee earned by the Contractor as stipulated within the contract clauses "Determining Total Available Mission Stretch Goal(s) Incentive Fee and Fee Earned" and "Total Available Fee: Base Fee and Performance Fee Amount." Battelle may receive a mission stretch goal incentive fee of up to $3.0M based on the Contractor's ability to meet the mission stretch goals set forth within this document. The fee amount identified above, as well as the weightings assigned to each mission stretch goal, is based solely on the current set of identified mission stretch goals and may be increased/changed upon agreement of the parties, as appropriate, based on the addition of any mission stretch goals; provided, however, that if the parties cannot reach agreement on the total available fee for any additional mission stretch goals or the weighting of the mission stretch goals, the Contracting Officer shall have the unilateral right to establish a new total available mission stretch goal fee and new weightings assigned to each mission stretch goal.

<u>Section II</u> provides information on how the DOE will determine if the mission stretch goals have been met by the Contractor, as well as how the mission stretch goal incentive fee earned (if any) will be determined.

Section III provides the detailed information concerning the mission stretch goals, objectives, and performance measures.

II. DETERMINING THE CONTRACTOR'S PERFORMANCE IN MEETING MISSION STRETCH GOALS AND MISSION STRETCH GOAL INCENTIVE FEE EARNED

The DOE shall verify and validate Contractor's success in meeting the mission stretch goals based on the criteria outlined in Section III, Mission Stretch Goals, Objectives, & Performance Measures. The mission stretch goals shall be evaluated and incentive fee earned awarded independent of each other. Each of the mission stretch goals are comprised of an objective(s) and performance measures which will be utilized to determine the Contractor's overall success in meeting each mission stretch goal. In order to earn a value point for a performance measure, the Contractor must meet, to the satisfaction of the Office of Associate Manager for Science and Technology and the appropriate program office, all of the components of the measure. For each measure that is fully met by the Contractor, the measure shall be awarded one (1) value point. Should a measure be only partially met, or not met at all, a value point of zero (0) shall be indicated for that measure. The overall objective rating will then be computed by multiplying the value points by the weight of each performance measure within an objective. These values are then added together to develop an overall score (percentage) for each objective. The score (percentage) for each objective within a mission stretch goal is computed in the same manner and is used to develop an overall score (percentage) for each mission stretch goal. A set of tables is provided at the end of each mission stretch goal section of this document to assist in the calculation of the measures, to objective score(s), to the overall mission stretch goal score. These scores (percentages) shall be indicated within Table A to calculate the overall mission stretch goal incentive fee earned by the Contractor.

Table A indicates the total available incentive fee for each of the mission stretch goals and will be utilized to indicate the amount earned for each:

Mission Stretch goal	Weight	Available Incentive Fee	Percentage Earned	Total Mission Stretch Goal Incentive Fee Earned
Office Of Biological And Environmental Research (BER)	79%	$2,370,000.00		
Office Of Basic Energy Science	14%	$420,000.00		
Office Of Advanced Scientific Computing Research (ASCR)	7%	$210,000.00		
			Total Incentive Fee Earned	

Table A. Mission Stretch Goal Incentive Fee for the Contract Period

Furthermore, in order to earn any mission stretch goal fee, the Contractor must maintain an overall performance evaluation rating of "Outstanding" within Science and Technology for each year of the term of this contract, as determined by the Performance Evaluation and Measurement Plan, documented within Section J, Appendix E, of this contract. Should the Contractor not meet the above standards, the overall available mission stretch goal incentive fee for all current mission stretch goals shall be reduced by 25 percent for each year the standard is not met; provided however that, if the Contractor's rating in Science and Technology falls below "Outstanding" for any three performance periods the Contractor shall not be eligible to earn any mission stretch goal incentive fee.

Unless otherwise agreed upon by the parties, final verification/validation of the mission stretch goals shall be conducted during the final quarter of the contract term (fourth quarter FY 2007). A determination will be made whether the mission stretch goal(s) were met or not and shall be provided to the Contractor, to include authorization to draw-down any mission stretch goal incentive fee earned, concurrently with the year-end performance evaluation report issued in accordance with Section J, Appendix E, "Performance Evaluation and Measurement Plan."

Should the Contractor believe it has successfully met a mission stretch goal and/or objective prior to the fourth quarter of FY 2007, the Contractor shall notify the DOE in writing. Upon such notification, the DOE may, at its sole discretion, verify/validate such completion and award any mission stretch goal incentive fee earned. The Contractor may be provisionally paid the mission stretch goal incentive fee through a withdrawal against the payments cleared financing arrangement as provided in writing by the Contracting Officer. In the event the Contractor does not meet the required performance standards, which resulted in the total available mission stretch goal incentive fee being reduced, any overpayment plus interest shall be redeposited by the Contractor to the payments cleared financing arrangement within 30 calendar days, or otherwise as directed by the Contracting Officer. Interest shall be computed from the date of the end of the performance period in which the Contractor did not meet the above mentioned standards to the date of repayment using the interest rate specified by the Secretary of the Treasury pursuant to Pub. L. 92-41 (85 Stat. 97).

III. MISSION STRETCH GOALS, OBJECTIVES, & PERFORMANCE MEASURES

The following sub-sections describe the mission stretch goals, objective(s), and associated performance measures for the contract period (FY 2004 – 2007). These mission stretch goals are each extraordinary, and accomplishment of them will represent exceptional performance.

1.0 OFFICE OF BIOLOGICAL AND ENVIRONMENTAL RESEARCH (BER) MISSION STRETCH GOAL (79%)

The Contractor shall accomplish, within the contract period, a mission stretch goal in environmental biology, and a measurable substantial increase in the scientific impact of the Environmental Molecular Sciences Laboratory (EMSL).

The understanding of how naturally occurring microbes impact the fate and transport of contaminants in the environment is vital to the Department's ability to make risk-based remediation decisions as well as new technologies for remediation at DOE contaminated sites, of which there are over 7,000 that have been identified. A molecular understanding of these processes involves the interplay between the disciplines of chemical, geological, and biological sciences. The ability to make risk-based decisions on remediation could potentially save DOE $100 billion over 30 years and would also be applicable to other contamination problems such as mining and industrial contamination. In addition, such knowledge will contribute to the understanding of how cells interact with mineral or metal surfaces, which will have a broad impact in the biology community. Users from fields beyond the environmental sciences will also use EMSL's capabilities to understand how cells receive and send messages from and to their environment and their neighbors. Fundamental advances in cell signaling will help us understand not only microbes but also human development and disease leading to the discovery of new medicines for diseases, ranging from developmental disorders to cancer. This new knowledge of how cells communicate will even speed our efforts to understand the biological effects of low doses of radiation and thus improve the scientific basis for future radiation protection standards.

1.1 The Contractor will work to establish an international reputation for EMSL as a leading environmental and biology laboratory specializing in interdisciplinary research. Success will be assessed based on the importance and the scientific excellence of the research conducted at the Environmental Molecular Sciences Laboratory (EMSL). Specific measures of success are:

1.1.1 Minimum of 8 journal publications in Science, Nature, or PNAS.

1.1.2 Develop and deploy to the user community a minimum of 5 new or improved capabilities/methodologies for investigation of environmental and biology problems verified and validated by EMSL's User Advisory Committee (UAC) which provides a recommendation to BER regarding the completion of the measure.

1.2 The Contractor will increase the scientific impact of the EMSL user program within the environmental and biology research community. Specific measures of success are:

1.2.1 Development and implementation within the EMSL user program of two scientific grand challenges in the areas of subsurface fate & transport and biology. The increased scientific impact of the user program by one of these grand challenges will be verified and validated by a subcommittee of BERAC which will provide recommendation to BER regarding the successful completion of this measure.

1.2.2 Over the period of the contract, 15% or more of the total user time available in 4 of the major facilities in EMSL (CPCS, ESB, HFMR, HPMS, INS, MSC) will be utilized by users associated with the grand challenges.

ELEMENT	Value Points	Indicator Weight	Total Score	Objective Weight	Total Score
1.0 OFFICE OF BIOLOGICAL AND ENVIRONMENTAL RESEARCH (BER) MISSION STRETCH GOAL					
1.1 The Contractor will work to establish an international reputation for EMSL as a leading environmental biology laboratory, ….					
1.1.1 Publications in prestigious journals.		70%			
1.1.2 New or improved capabilities/methodologies.		30%			
			Objective 1.1 Total	50%	
1.2 The Contractor will increase the scientific impact of EMSL					
1.2.1 Establish grand challenges in subsurface fate & transport and biology.		70%			
1.2.2 Use of major facilities by grand challenge users.		30%			
			Objective 1.1 Total	50%	
				Mission Stretch goal 1.0 Total	

Table 1.1. BER Mission Stretch Goal Evaluation Score Calculation

2.0 OFFICE OF BASIC ENERGY SCIENCE (BES) MISSION STRETCH GOAL (14%)

The Contractor shall accomplish, within the contract period, an increased national position for the Laboratory in condensed-phase and interfacial chemical physics and an active engagement of leading scientists and students external to the Laboratory.

Condensed-Phase and Interfacial Chemical Physics is the study of the chemical and physical properties of molecules in solution and at the boundaries between surfaces and solutions. Understanding molecular scale behavior in such systems is the key to controlling chemistry, chemical transport, and materials properties in the condensed phase. Meeting this mission stretch goal will accelerate the dissemination of the scientific methods and theories that the Laboratory develops with BES support. This in turn will accelerate research discoveries throughout the Nation by significantly enhancing the ability of scientists to understand, design, and optimize the processes associated with new sources of energy, chemical manufacturing, and environmental remediation that will lead to more effective separations methods for chemical analysis; more specific, efficient, and environmentally friendly catalysts; enhanced capability for detecting chemical species in complex environments; and improved understanding of the migration of chemicals in natural environments.

2.1 Over the contract period the Contractor shall establish the Laboratory in a national leadership role in the area of theoretical and experimental condensed phase and interfacial chemical physics research which will lead to more efficient and effective separations methods for chemical manufacturing and chemical analysis, more specific, efficient, and environmentally friendly catalysts, enhanced capability for detecting chemical species in complex environments, and improved understanding of the migration of chemical species in natural environments. Work in condensed-phase catalysis may have strong and near-term societal relevance, because over 90% of all commercial chemical processes are catalytic. Economic impacts can be substantial. For example, the catalytic process known as Ziegler-Natta polymerization, a process that currently produces about 100 billion pounds of plastics per year worldwide, is based on designs that were first introduced by BES supported investigators. Successful achievement of a national leadership role will be evidenced by:

2.1.1 Establishment of a visible visiting distinguished scientist program with the goal of productive scientific and intellectual exchange. The contractor shall host at least 16 visiting senior scientists (tenured faculty from major research universities or equivalent form industrial or national laboratories) for a duration of not less than 10 weeks (one scientist may constitute multiple visits during the period, but not more than once per year) over the contract period. Two of the 16 visits can be accomplished by a compilation of shorter duration visits. A total of 20 visitor weeks will be deemed equivalent to one 10 week visit.

2.1.2 Establishment of a summer school (at least two weeks in duration) to educate graduate students and young scientists in state-of-the-art theory, simulation, and experimental measurement, with a total attendance of at least 60 over the contract period.

ELEMENT	Value Points	Indicator Weight	Total Score	Objective Weight	Total Sore
2.0 OFFICE OF BASIC ENERGY SCIENCE (BES) MISSION STRETCH GOAL					
2.1 The Contractor shall establish the Laboratory in a national leadership role in the area of theoretical and experimental condensed phase and interfacial chemical physics research….					
2.1.1 Establishment of a visible visiting scientist program.		50%			
2.1.2 Establishment of a summer school to educate graduate students and young scientists in state-of-the-art theory, simulation, and experimental measurement.		50%			
			Objective 2.1 Total	100%	
				Mission Stretch Goal 2.0 Total	

Table 2.1. BES Mission Stretch Goal Evaluation Score Calculation

3.0 OFFICE OF ADVANCED SCIENTIFIC COMPUTING RESEARCH (ASCR) MISSION STRETCH GOAL (7%)

The Contractor shall accomplish, within the contract period, significant improvements in the effectiveness of the HP 11-TeraFLOPS computer at the EMSL as a tool for scientific discovery.

Parts 3.1.1 and 3.1.2 below are in computational chemistry; part 3.1.3 in computational biology; and part 3.1.4 in large-scale simulation of subsurface processes. Attainment of this mission stretch goal will require performance improvements over existing methods in computational performance by 20%

in some areas to 100% in other areas. It will also require substantial improvements in algorithms and other areas. Accomplishment of these goals will enable the Laboratory to exercise world leadership in computational chemistry and biology.

3.1 The Contractor will achieve sustained efficiencies at peak speeds (11-TeraFLOPS) as evidenced by the following calculations. ASCR will convene an independent review group to review the data with respect to the achievement of the efficiency targets and provide a recommendation to ASCR regarding the successful completion of the measures.

3.1.1 60% for high level correlation energy calculations.
3.1.2 20% for density functional theory calculations.
3.1.3 15% for molecular dynamics simulations.
3.1.4 15% for operator split reactive transport calculations.

ELEMENT	Value Points	Indicator Weight	Total Score	Objective Weight	Total Sore
3.0 OFFICE OF ADVANCED SCIENTIFIC COMPUTING RESEARCH (ASCR) MISSION STRETCH GOAL					
3.1 The Contractor will achieve sustained efficiencies at peak speeds (11-TeraFLOPS)					
3.1.1 60% for high level correlation energy calculations.		50%			
3.1.2 20% for density functional theory calculations.		15%			
3.1.3 15% for molecular dynamics simulations.		15%			
3.1.4 15% for operator split reactive transport calculations.		20%			
			Objective 3.1 Total	100%	
				Mission Stretch Goal 3.0 Total	

Table 3.1. ASCR Mission Stretch Goal Evaluation Score Calculation