



U.S. Department of Energy
Office of River Protection

P.O. Box 450
Richland, Washington 99352

01-OSR-0194

Mr. Ron F. Naventi, Project Manager
Bechtel National, Inc.
3000 George Washington Way
Richland, Washington 99352

Dear Mr. Naventi:

CONTRACT NO. DE-AC27-01RV14136 – OFFICE OF SAFETY REGULATION (OSR)
APPROVAL OF BECHTEL NATIONAL, INC (BNI) NONRADIOLOGICAL WORKER
SAFETY AND HEALTH PLAN

Reference: BNI Letter from R. F. Naventi to M. K. Barrett, ORP "Contract Deliverable 7.0,
Submittal of the Nonradiological Worker Safety and Health Plan, Revision 1, In
Response to the Regulatory Unit Assessment of the Nonradiological Worker Safety
and Health Plan, Revision 0," CCN 018132, dated March 28, 2001.

The OSR completed its review of the BNI Nonradiological Worker Safety and Health Plan (the Plan), submitted by the referenced letter. The OSR review is documented in the enclosure, which contains additional references to pertinent correspondence. Based on the OSR review, and in accordance with the requirements of the BNI Contract, the Plan is approved subject to BNI's satisfactory completion of the following conditions:

1. BNI shall submit the Authorization Basis Change Notice that will remove the commitment to a Voluntary Protection Program (VPP) from the Integrated Safety Management Plan.
2. BNI shall modify the Plan as indicated in its response to OSR questions and requests for clarification.

Since the modifications have minor safety significance, BNI may implement the modified Plan when these conditions have been met without OSR prior approval of the modifications. OSR will verify the adequacy of the modifications in a subsequent inspection. The conditions were discussed with Mr. Tom Meagher of your staff. If you have any questions about this request, please contact Al Hawkins, (509) 372-0805.

Mr. Ron F. Naventi
01-OSR-0194

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Nothing in this letter should be construed as changing the Contract, DE-AC27-01RV14136. If, in my capacity as the Safety Regulation Official, I provide any direction that your company believes exceeds my authority or constitutes a change to the Contract, you will immediately notify the Contracting Officer and request clarification prior to complying with the direction.

Sincerely,

Robert C. Barr
Safety Regulation Official
Office of Safety Regulation

OSR:ARH

Enclosure

cc w/encl:
T. Meagher, BNI

Evaluation by the ORP Office of Safety Regulation
of the Bechtel National, Inc.
Nonradiological Worker Safety and Health Plan, Rev. 1
Submitted March 28, 2001
(Contract DE-AC27-01RV14136)

INTRODUCTION

The Nonradiological Worker Safety and Health Plan (the Plan) describes the River Protection Project – Waste Treatment Plant (RPP-WTP) Contractor's (the Contractor's) program for protecting employees, subcontractors, and visitors from Industrial Health and Safety (IH&S) hazards. The Plan applies to activities from the start of limited construction activities through cold startup of the completed facilities.

Revision 0 of the Plan was submitted by BNFL, Inc.¹ (BNFL) and addressed requirements under the privatization contract then in place. The Office of Safety Regulation (OSR) reviewed this plan using established guidance² and a documented review approach.³ The OSR documented questions on the BNFL Plan⁴ and BNFL responded.⁵ The OSR prepared a draft Assessment Report (AR) and transmitted the draft AR to BNFL for its review in parallel with public review.⁶ The transmittal included a request for clarification on five BNFL responses to OSR questions and one additional question. On June 29, 2000, the ORP Manager issued a "Notice of Termination" terminating all except specifically designated work under the contract effective with the date of the letter. Therefore, BNFL did not respond to the draft AR or requests for clarification. (No public comments were received.)

On August 24, 2000, the OSR issued the final AR for information.⁷ The OSR found that the Plan was acceptable, subject to resolution of three issues. The OSR also noted four areas, which did not affect the Plan's acceptability, where clarification would improve its usefulness.

¹ PL-W375-IS00001, *Non-Radiological Worker Safety and Health Plan for the River Protection Project – Waste Treatment Plant*, Rev. 0, BNFL, Inc., April 11, 2000.

² RL/REG-2000-03, *Review Guidance for the BNFL Non-Radiological Worker Safety and Health Plan*, Rev. 0, Richland Operations Office, Office of Safety Regulation, April 21, 2000.

³ RL/REG-2000-09, *Planning Handbook for the Non-Radiological Worker Safety and Health Plan*, Rev. 1, Richland Operations Office, Office of Safety Regulation, April 27, 2000.

⁴ REG Letter from D. C. Gibbs to M. J. Bullock, BNFL, "Regulatory Unit (RU) Questions on the Non-Radiological Worker Safety and Health Plan," 00-RU-0378, dated May 19, 2000, and REG letter from D. C. Gibbs to P. O. Strawbridge, "Additional Regulatory Unit (RU) Questions on the Non-Radiological Worker Safety and Health Plan," 00-RU-0412, dated June 2, 2000.

⁵ BNFL Letter from S. R. Morgan to D. C. Gibbs, REG, "Contract No. DE-AC27-96RL13308-W375 – Response to Regulatory Unit Questions on the Non-Radiological Worker Safety and Health Plan," CCN 013986 (00-RU-0460), dated, June 21, 2000.

⁶ REG Letter from D. C. Gibbs to P. O. Strawbridge, BNFL, "Requests for Clarification and Draft Regulatory Unit (RU) Assessment of the Non-Radiological Worker Safety and Health Plan," 00-RU-0482, dated July 17, 2000.

⁷ REG Letter from D. C. Gibbs to P. O. Strawbridge, BNFL, "Regulatory Unit (RU) Assessment of the Non-Radiological Worker Safety and Health Plan, Revision 0," 00-RU-0535, dated August 24, 2000.

On December 11, 2000, the ORP entered into a new contract with Bechtel National, Inc. (BNI) to design, construct, and commission the RPP-WTP.⁸ On March 28, 2001, BNI submitted a revised Plan.⁹ The OSR noted that this plan did not include a matrix relating BNI procedures, guides, and policies to the OSHA requirements of 29 CFR 1910 and 1926,¹⁰ which was provided with the original BNFL submittal. On April 12, 2001, BNI provided this matrix.¹¹

BACKGROUND

The revised Plan submitted by BNI addressed the three issues and four clarifications requested in the August, 2000 assessment. BNI made few additional changes.

Therefore, the OSR conducted a limited review of the revised Plan. Each change made by BNI was reviewed and the effect of the change was assessed. The review also assessed whether BNI adequately addressed previous issues and requests for clarification. The review considered the requirements of the new contract that were different from the original contract, largely due to eliminating the privatization approach. The Review Team Leader for the original review, A. R. Hawkins, and a member of the original review team, J. D. Brown, conducted the review.¹² Mr. P. J. Wilhelm, EH-51,¹³ provided assistance and comments to the reviewers.

The current contract requirements for the Plan are as follows:¹⁴

1) Non-radiological Worker Safety and Health:

The Contractor shall develop and implement an integrated standards-based safety management program. The Contractor's safety management program shall reflect proven principles of safety management and work planning that promotes accident prevention, employee involvement, and sound hazard analysis and control.

The Contractor's non-radiological worker safety and health program shall conform to the DOE regulatory program described in RL/REG-2000-04, "Industrial Hygiene and Safety Regulatory Plan."

⁸ Contract No. DE-AC27-01RV14136 between DOE and Bechtel National, Inc., dated December 11, 2000.

⁹ BNI Letter from R. F. Naventi to M. K. Barrett, ORP, "Contract No. DE-AC27-01RV14136 – Contract Deliverable 7.0, Submittal of the Nonradiological Worker Safety and Health Plan, Revision 1, In Response to the Regulatory Unit Assessment of the Nonradiological Worker Safety and Health Plan, Revision 0," CCN 018132, dated March 28, 2001.

¹⁰ 29 CFR 1910, "Occupational Safety and Health Standards for General Industry," *Code of Federal Regulations*, as amended and 29 CFR 1926, "Safety and Health Regulations for Construction," *Code of Federal Regulations*, as amended.

¹¹ BNI Letter from A. R. Veirup to W. J. Taylor, ORP, "Contract No. DE-AC27-01RV14136 – Crosswalk Matrix," CCN 019462, dated April 12, 2001.

¹² Reviewer credentials are documented in RL/REG-2000-21, *Regulatory Assessment of the Non-radiological Worker Safety and Health Plan*.

¹³ U.S. Department of Energy, Headquarters, Deputy Assistant Secretary for Safety and Health, Office of Regulatory Liaison.

¹⁴ Contract No. DE-AC27-01RV14136, Standard 7, "Environment, Safety, Quality and Health."

In imposing, through Appendix A of RL/REG-2000-04, the OSHA requirements of 29CFR 1910 and 1926, these requirements are equivalent to those in the privatization contract.

ASSESSMENT

The reviewers found that BNI made changes to the Plan as documented in the following text. Each change is followed by the reviewers' assessment of the significance of the change. The review of a change that raised a question or need for clarification requiring further input from BNI also is noted. These questions and requests for clarification were collated and provided to BNI on May 1, 2001.¹⁵ The BNI responses to the questions and requests for clarification, received on May 24, 2001,¹⁶ are noted, and considered in the reviewers' assessment.

General Changes

- The accuracy and readability of the Nonradiological Worker Safety and Health Plan (Plan) were significantly improved by careful editing.

Assessment – the editorial changes do not affect commitments or compliance with specified requirements. The changes were acceptable.

- Several pages of policy statements were removed from the preface.

Assessment – the policy statements were not required and their deletion did not affect commitments or compliance with specified requirements. This change was acceptable.

- Revision 1 removed the list of IH&S procedures that were in section 9, "Project Procedures" of the Plan. In addition, in response to previous OSR questions regarding where specific regulations were met, BNFL extensively referenced its procedures. BNI provided (CCN 019462, April 12, 2001) a matrix that crosswalks BNI "procedures, guides, and policies with their corresponding subpart(s) of the Construction Standards (29 CFR 1926)."

Therefore, the reviewers posed the following questions to BNI:

"Does the matrix represent a specific commitment by BNI to have procedures in place before start of construction that cover the indicated areas? Will the procedures address the commitments made in the response to previous OSR questions?"

BNI responded with the commitments that:

¹⁵ OSR Letter from R. C. Barr to R. F. Naventi, BNI, "Contract No. DE-AC27-01RV14136 – Nonradiological Worker Safety and Health Plan Review," 01-OSR-0155, dated May 1, 2001.

¹⁶ BNI Letter A. R. Veirup to M. K. Barrett, ORP, "Response to the Office of Safety Regulation's Assessment of the Nonradiological Worker Safety and Health Plan, Revision 1," CCN 020147, dated May 24, 2001.

"BNI will have procedures and guides, as listed on the matrix, implemented prior to start of construction. Only applicable procedures may be issued as required for the initial limited construction activities, and all procedures will be issued prior to start of full construction activities.... BNI supports the commitments made in response to previous OSR questions."

Assessment – The reviewers found that the commitments made in the BNI response were adequate. The program assessment inspection, which will occur before Limited Construction Authorization, will examine BNI's implementation of the IH&S program.

- In CCN 018132, March 28, 2001, BNI responded to an OSR request to "Clarify intended involvement in the Voluntary Protection Program" by stating:

"BNI will not be involved with a Voluntary Protection Program."

The BNI Integrated Safety Management Plan (ISMP - BNFL-5193-ISP-01, Section 7.2, "Occupational Health and Safety Interface") states:

"The RPP-WTP contractor will have an OSHA-qualified Voluntary Protection Program. The RPP-WTP contractor will obtain STAR status during construction...."

Therefore, the reviewers requested clarification as follows, "Please clarify the difference between the BNI response in CCN 018132 and the commitment in the authorization basis ISMP."

BNI responded by stating that:

"BNI will issue an ABCN (ABCN-24590-01-00002) to the ISMP, which will remove the involvement in a VPP.... BNI feels the resources that would be used to implement VPP STAR could be used more effectively for other worker protection programs. Furthermore, BNI believes that the elements of VPP are embedded within the requirements of RL/REG 2000-04, Appendix A. Therefore, by complying with the requirements of Appendix A, BNI will be acting in accordance with the tenets of VPP."

Assessment – The reviewers agreed with the BNI assessment that RL/REG-2000-04 included elements of VPP. However, the reviewers recommended that submittal of the noted ABCN be a condition of approval of the Plan.

- Neither Federal OSHA nor the State of Washington has jurisdiction for occupational safety and health (IH&S) for this project. Only DOE, through its contract with BNI, has IH&S jurisdiction. RL/REG-2000-04, Appendix A provides a list of IH&S program and standard requirements. These requirements are mandatory for BNI. In addition to referencing RL/REG-2000-04, Appendix A, the Plan variously refers to the *Occupational Safety and Health Act of 1970*, part 29 of the *Code of Federal Regulations*, "other applicable standards," and "federal, state or local regulations." Various terms were used to describe the set of IH&S requirements, e.g., obligations (p.2), safety and health

policies and requirements (p.2), regulations or standards (p.2), safety requirements (p.2), applicable federal, state and local laws (p.3), safety and health requirements (p.3), applicable ES&H requirements (p.4), applicable occupational health and safety standards (p.5), safety policy and rules (p.6), and applicable safety and health practices, regulations, permits, licenses, and approvals (p.8). The reviewers determined that it is essential that BNI and its staff clearly understand the mandatory IH&S requirements. Therefore, the reviewers requested clarification as follows, "Please review RL/REG-2000-04, Appendix A, and clarify how BNI intends to meet the program and standard requirements of the contract with BNI's Plan."

BNI responded by stating that:

"As specified by the contract, BNI and its subcontractors will, at a minimum, follow the worker protection requirements listed in RL/REG-2000-04 rev.1 Appendix A, section 12. These requirements are included in the Plan and may be described as 'standards,' 'regulations,' 'requirements,' and other generic terms. References to state and local regulations and laws will be deleted from the Plan. BNI recognizes that DOE will have IH&S jurisdiction."

Assessment – The Plan should clearly and consistently state that RL/REG-2000-04, Appendix A is the source of requirements for the IH&S program. The BNI response was adequate, provided the text of the Plan is changed as indicated. The reviewers recommended that this change, and other BNI commitments to modify the Plan as indicated in its response to OSR questions and requests for clarification, be a condition of approval of the Plan.

- The BNI contract requires that "...the Contractor shall establish and maintain an Integrated Safety Management System (ISMS)."¹⁷ The reviewers found that the Plan did not indicate how it is related to the BNI ISMS. Therefore, the reviewers requested the following clarification, "Please clarify how the Plan is related to the BNI ISMS and integrated with other programs/elements of the WTP Project safety management system."

BNI responded by stating that:

"The BNI developed Integrated Safety Management System (ISMS) will address Non-Radiological Worker Safety and Health, Radiological, Nuclear, Process Safety, Quality Assurance, and Environmental Protection. Each of these activities will be described in the ISMS description document. This management system of plans, policies, programs, and procedures will integrate health and safety into all facets of work planning and execution, and support the overall objective to do work safely. The ISMS description document will indicate how the Non-Radiological Worker Health and Safety Plan is integrated with other elements of the WTP Project Safety Management System (ISMS) and incorporates the ISM Core Functions and Guiding Principles in the approved instructions, procedures, and administrative controls for safe work performance. The approach for ISMS includes a review of current project infrastructure versus DOE ISMS

¹⁷ Contract No. DE-AC27-01RV14136, Section C.4, "Environment, Safety, Quality and Health."

expectations, preparation of an outline of the system description document, and preparation of a schedule for program system description development and implementation."

Assessment – The response indicates that BNI is in the process of developing its ISMS, and provided only the general principles that the ISMS will meet. However, because the ISMS will not relieve BNI from meeting the specific requirements outlined in RL/REG-2000-04, Appendix A, the reviewers found that the BNI response was adequate.

Specific Deletions and Changes¹⁸

- Section 1.2, "Purpose of the Nonradiological Worker Safety and Health Plan"
 - Eliminated some wording associated with non-required goals for the Contractor's accident prevention programs
 - Removed wording requiring Project Manager approval of requests to distribute the Plan to "other organizations, or regulatory or governmental agencies...."

Assessment – The deletions do not affect commitments or compliance with specified requirements. The second deletion correctly reflects that the Plan will be generally available to interested parties through the OSR website. The changes were acceptable.

- Section 1.2, "Purpose of the Nonradiological Worker Safety and Health Plan," includes the term "proactive safety performance record." Section 2.5, "Subcontractors," describes that criteria used to select subcontractors, but does not use the term "proactive safety performance record." Therefore, the reviewers requested the following clarification from BNI, "Please clarify the meaning of this term."

BNI responded by stating that, "A description of the selection criteria for subcontractors is provided in section 2.5 of the Plan." In addition, BNI committed to, "...modify the Plan to tie in the hurdle rates as a measure of distinguishing subcontractors with proactive safety performance rates."

Assessment – The reviewers understand "hurdle rates" to mean the average experience modification rate, OSHA recordable rate, and lost workday case rate described in Section 2.5 of the Plan. As noted below (Section 2.5.1), subcontractors must meet more restrictive "hurdle rates" in the proposed revision of the Plan. With the commitment to clearly tie these new rates to the selection of subcontractors, the change was acceptable.

- Section 1.5, "Accident Prevention Policy," describes the manager or supervisor as responsible for assessing an employee safety concern and informing the employee as to the corrective measures. The reviewers noted that the section did not address the manager's responsibility for ensuring that corrective measures are implemented.

¹⁸ Note that the section numbers and titles quoted are from the Rev. 0 Plan.

Therefore, the reviewers requested the following clarification from BNI, "Please clarify what responsibility the manager has for ensuring implementation."

BNI responded by stating that:

"Management will be responsible for ensuring that once a safety concern is raised the concern will be evaluated and the corrective measures, commensurate with the hazard, are implemented. BNI will modify section 1.5 of the Plan to state that management is responsible for verifying the appropriate corrective measures have been implemented prior to restart of the work."

Assessment – The commitment that management is responsible for verifying corrective measures for employee safety concerns are implemented was acceptable.

- Section 1.7.3, "Prevention-Based and Proactive Safety Process," – added the qualifier "where hazards may exist" to work subject to planning and implementation of work controls.

Assessment – This change clarifies intent and does not affect commitments or compliance with specified requirements. The change was acceptable.

- Section 2.2.1, "Site Manager" – Changed the requirement for reporting accidents from "regulatory authorities as needed" to "as required by procedures."

Assessment – This change properly places emphasis on having and complying with procedures. The change was acceptable.

- Section 2.3.3, "Environmental Engineers" – Deleted sections on the roles and responsibilities of Environmental Engineers, specifically with respect to dangerous wastes, permits, and response to spills. This section described roles and responsibilities with respect to dangerous wastes, permits, and response to spills. In Section 5.7, "Hazardous Waste Operations and Emergency Response," BNI states that training may be required when the project is ready for cold start-up. However, a referenced requirement, 29 CFR 1926.65 (a)(1)(v) states that it also applies to emergency response operations for releases, or substantial threats of releases of hazardous substances without respect to the location of the hazard. Therefore, BNI was asked, "How will BNI prepare for response to spills of hazardous materials that might occur during construction activities?"

BNI responded by stating that:

"BNI will utilize the procedure K90P017, *Site Emergency Management*, to respond to spills during construction activities. According to this procedure, Hanford Fire Department will provide 'emergency response,' as defined by section (a) (3) of 29 CFR 1926.65, 'Hazardous Waste Operations and Emergency Response.' Therefore, the training requirements of this regulation will not be applicable for WTP employees during the anticipated construction activities."

Assessment – The response clarified that BNI will use the trained staff of the Hanford Fire Department (HFD) to respond to hazardous material spills. The reviewers confirmed the BNI response with the responsible management of the HFD. HFD management noted that they will respond to all spills and will have the responsibility for cleaning up spills that are an imminent danger using trained HFD resources. The change, therefore, was acceptable.

- Section 2.5.1, "Subcontractors"
 - Simplified the safety and health criteria for selecting subcontractors and eliminated the option of employing, by exception, subcontractors that do not meet the criteria.
 - Changed the requirement for subcontractor assessments from their being made through the authorized (BNI) representative to the authorized representative being advised of assessments.

The reviewers could not initially evaluate the second change. In addition, there were no provisions for coordinating the subcontractors' IS&H programs, such as lock-out/tag-out or confined space entry, with BNI's IS&H program. Therefore, BNI was asked to, "Please clarify how IH&S staff will be involved in these assessments and how BNI will ensure integration of subcontractor programs."

BNI responded by stating that:

Each subcontractor will have a Site Technical Representative (STR), referred to in the Plan as the 'authorized representative,' onsite during construction activities. BNI's industrial safety staff will perform assessments or inspections of the subcontractors' safety procedures and programs, such as lockout / tagout and confined space entry. The STRs will be encouraged to be present during the assessment/inspection, and will be provided any reports generated by these activities. The subcontractor's manager or supervisor will also receive a copy of the report."

Assessment – The reviewers noted that the simplified contractor selection criteria are at least as restrictive as the previous criteria for "average subcontractors" (lost workday case rate changed from less than 4 cases per 100,000 worker hours to less than 3, OSHA recordable rate changed from less than 7.5 to less than 3.2). Therefore, the first change was a significant improvement in the level of commitment.

The clarification regarding the relative roles of BNI industrial safety staff and the STR described a process where it is not necessary for the BNI staff to have the involvement of the STR to conduct their inspections. This change was acceptable.

- Section 2.5, "Subcontractors," refers to documents that must be provided to the WTP, including willful citations from OSHA/WISHA for the previous three years. The reviewers could not determine the full extent of the documentation requested from subcontractors. Therefore, BNI was asked to:

"Please clarify whether BNI is asking [subcontractors] for alleged/proposed willful citations or willful citations affirmed by an Administrative Law Judge. Please clarify if BNI will also ask [subcontractors] for 'Failure to Abate' citations."

BNI responded by stating that:

"BNI will require the subcontractors to meet the Environment, Safety, Quality and Health requirements as described in section H.22 of contract DE-AC27-01RV14136. Section H.22 includes part (I), which states, 'The subcontractor has had no significant willful citations from OSHA or other regulatory organizations during the previous three (3) years.'"

Assessment – The BNI response reiterates the contractor's commitment to use safety and health performance as an important factor in selecting subcontractors. The response clarified that BNI will examine all willful citations, whether confirmed or not, but will not consider "Failure to Abate" citations. As this is consistent with the contract, the response was acceptable.

- Section 3.2, "Hazard Prevention and Control" – Reassigns the responsibility for reviewing project tasks for hazards from "the ES&H Department" to "health and safety professionals." This section also states that the purpose of the review is to "identify appropriate controls to conduct the task safely."

Assessment – This change gives BNI the latitude to use subcontractor S&H personnel and/or outside S&H personnel. Use of the term *professional* implies a reasonable level of competence. The change was acceptable.

- Section 3.5, "Work Documentation" – Eliminated the commitment that all "Important to Safety" (ITS) work will be performed with approved work and inspection packages. The reviewers noted that the original commitment was incomplete in its focus on "ITS" work, an undefined term, rather than work hazards. (ITS refers to the safety functions of Systems, Structures, and Components (SSCs), not to the hazards of work). The reviewers clarified this point with the following question, "When a JHA [Job Hazard Analysis] identifies the need for additional controls, how will those controls be documented and communicated?"

BNI responded by stating that:

"BNI will use the Job Hazard Analysis (JHA) form, as provided in K90P006, *STARRT/JHA*, to document the controls identified during the JHA. The JHA, notably the recommended controls, will be provided to the employees along with the STARRT card prior to performing the work, as described in section 3.4 of the Plan."

Assessment – The response indicated a course of action, which will not degrade the contractor's commitment to document hazard analyses and the implementation of control measures. The response was acceptable.

- Section 4.9 of the Nonradiological Worker Safety and Health Plan covers many of the requirements for an effective construction fire prevention plan. However, the section fails to explain what BNI's intentions are with respect to fire extinguishers. Fire Extinguishers are required by a variety of construction standards referenced in RL/REG 2000-04 Appendix A, such as 29 CFR 1926.152, "Flammable and Combustible Liquids." Therefore, BNI was asked, "How does BNI plan to ensure that fire extinguishers are placed and maintained according to the standards?"

BNI responded by stating that:

"BNI will describe the requirements for placement, use, and maintenance of fire extinguishers in various construction procedures and guides, such as K90P021, *Housekeeping, Fire Prevention, and Protection*. These procedures and guides will include the requirements for extinguishers or fire hoses to be located for use in vehicles and equipment operating booths and platforms; near flammable or combustible storage areas; near cutting and welding operations; and general locations to maintain nearby access to extinguishers. Specifically, these procedures and guides will meet the requirements of the 29 CFR 1926 subpart F, Fire Protection and Prevention."

Assessment – The inclusion of requirements for fire extinguishers in the detailed procedures and guides will appropriately communicate fire protection requirements as an integral part of job requirements. The response was acceptable.

- Section 4.12, "Fall Prevention Program" – Eliminated certain specifics regarding the fall protection program (e.g., use of shock-absorbing lanyards, training before use, use of full body harnesses) while retaining the general requirement for 100 percent fall protection for exposures of six feet or more or at any height where there is a risk of impalement.

Assessment – The 100 percent fall protection commitment exceeds the regulatory requirement of 29 CFR 1926.502 (d). The change was acceptable.

- Chapter 5, "Environmental, Safety, and Health Training" – Clarifies that Smart Mark and New Employee Site Safety Orientation are specifically for construction and construction site workers, respectively.

Assessment – The reviewers found that this clarification is reasonable and does not affect commitments or compliance with specified requirements. The change was acceptable.

- Chapter 7, "Incident Investigation" – Commits only to investigating "significant" near misses, where "significant" is not defined in the Plan. Therefore, BNI was asked, "How does BNI define 'significant?'"

BNI responded by stating that:

"BNI will modify the plan to remove the qualifier "all significant"...since BNI will investigate near-misses (and recordable cases and lost time accidents) that

meet the reporting criteria as described in K90P051, *Reporting Occurrences in Accordance with DOE Order 231.1A*... If the near-miss does not meet the reporting criteria, a graded approach will be utilized in assessing and investigating the near-miss."

Assessment – The removal of the qualifier and the use of a graded approach to investigate near miss incidents is consistent with the requirement that the Contractor's commit to an effective worker protection program. The response was acceptable.

Specific Additions

- Section 1.2, "Purpose of the Nonradiological Worker Safety and Health Plan"
 - Recognizes the new contractual requirements, including RL/REG-2000-04
 - Now states that "Subcontractors will be screened prior to the award of their contracts, to select companies that have a proactive safety performance record"
- Section 1.5, "Accident Prevention Policy"
 - Adds the specific requirement for managers and supervisors, when notified of a safety concern, to assess and mitigate problems and to keep employees informed
 - Adds the requirement to "actively track and follow-up on near misses" (Note: the reporting and tracking of near misses is added throughout the document, including Section 4.7, "Lessons Learned")
- Section 2.1, "General [Responsibilities and Accountability]" – Adds a description of how responsibility flows from the Project Manager through the management chain
- Section 2.2, "Construction Management [Responsibilities and Accountability]" – Adds written programs procedures, and instructions to enforceable rules
- Section 2.3, "Environmental, Safety, and Health Management [Responsibilities and Accountability]" - Adds the requirement for pre-award assessments of subcontractors regarding their safety and health records, capabilities, and programs. Also adds periodic evaluation of subcontractor performance relative to the nonradiological safety and health program (including specifically reviewing subcontractors' IH&S documentation and evaluating their compliance)
- Section 2.8, "Employee Concerns" – Clarifies process and employee rights and requires the immediate investigation and resolution of employee reports of unsafe work practices, acts, or conditions
- Section 3.3, "Stop Work Authority" – Expands and clarifies the conditions under which an employee may exercise stop work authority. Requires management to assess, evaluate

remedies, take corrective action, and verify problem resolution before lifting stop work order

- Section 3.10, "Cold Start-up Requirements" – Extends the period during which procedures for safe operation of the facility will be developed to include design, as well as construction
- Section 4.2, "Safety Meetings" – Adds the requirement to discuss mitigation strategies in any review of accident data and near-miss analyses
- Section 5.4, "Visitor Briefings" – Adds the requirement that all visitors be signed in and out of the site to maintain accountability
- Section 6.1, "Industrial Safety and Health Overview and Surveillance" – Clarifies that daily inspections can result in the issuance of a stop work order
- Section 6.3, "Equipment and Tool Inspection Program" – Significantly expands the detail on what this program includes and commits to implementation before start of construction
- Section 8.6, "Noise Control and Hearing Conservation" – Adds the requirement for safety and health personnel to devise means to protect workers in loud noise areas where hearing protection could impair recognition of warning horns or alarms

Assessment – the reviewers determined that these additions are positive changes that strengthen the document, clarify application, and/or respond to comments from the previous review. The changes were acceptable.

Suggested Clarifications

The reviewers noted the following items that could be clarified in the Plan:

- Section 6.2, "Occupational Illness and Injury reporting" – This section still cites reporting to "DOE and OSHA." Reporting to OSHA is not appropriate, since the work is not subject to OSHA requirements, as discussed under "General Changes," above.
- Section 6.4, "DOE Inspection and Investigation" – Cites RL/REG-2000-04 as the source of DOE access rights. Should cite contract Section C, Part C.3(e)(5).
- References – The current version (Revision 2, March 2000) of the Hanford Site Lockout/Tagout Program should be referenced.
- Section 2.2, "Construction Management," – The Plan does not reflect the RL/REG-2000-04 requirement for the contractor to have a designated representative on site at all times during periods of active construction.

In its response (CNN 020147), BNI committed to incorporate these changes in the next revision of the Plan.

CONCLUSION

The OSR concluded, based on the considerations described above, that Revision 1 of the Plan is acceptable, subject to the following conditions:

1. BNI shall submit the Authorization Basis Change Notice that will remove the commitment to a Voluntary Protection Program (VPP) from the Integrated Safety Management Plan.
2. BNI shall modify the Plan as indicated in its response to OSR questions and requests for clarification.