

CHAPTER 8 POTENTIALLY APPLICABLE LAWS, REGULATIONS, AND OTHER REQUIREMENTS

Chapter 8 presents the laws, regulations, and other requirements that apply to the alternatives. Federal, state, and U.S. Department of Energy environmental, safety, and health requirements are summarized in Section 8.1. Permits or licenses that may be required to implement the alternatives are discussed in Section 8.2. Consultations with Federal, state, and local agencies and federally recognized American Indian groups are discussed in Section 8.3.

8.1 ENVIRONMENTAL, SAFETY, AND HEALTH LAWS, REGULATIONS, ORDERS, AND OTHER REQUIREMENTS

Operations at the Hanford Site (Hanford) and Idaho National Laboratory (INL) are affected and, in many cases, regulated by numerous Federal and state legal requirements addressing environmental compliance, remediation, planning, preservation, and waste management. In some cases, the U.S. Department of Energy (DOE) has sole authority to take action, e.g., under the Atomic Energy Act (AEA). In other cases, the U.S. Environmental Protection Agency (EPA) has authority to regulate; in others, EPA has delegated its authority to regulate to the State of Washington, e.g., the Resource Conservation and Recovery Act (RCRA). In still other cases, state laws apply. Under DOE Order 450.1, *Environmental Protection Program*, it is DOE policy to conduct its operations in a manner that ensures the protection of public health, safety, and the environment through compliance with all applicable Federal and state laws, regulations, orders, and other requirements. The major Federal and state laws and regulations, Executive orders, DOE orders, and other requirements that may currently or in the future apply to the various alternatives analyzed in this *Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington (TC & WMEIS)* are identified in Table 8–1. These compliance requirements are briefly described in Sections 8.1.1 through 8.1.12.

The various action alternatives analyzed in this *TC & WMEIS* involve the construction of new DOE facilities; the operation, deactivation/demobilization, closure/decontamination and decommissioning of new and existing DOE facilities; and the transportation, treatment, and disposal of waste. Chapter 2 provides a discussion of these alternatives.

Table 8–1. Potentially Applicable Environmental, Safety, and Health Laws, Regulations, Orders, and Other Requirements

Law, Regulation, Order, or Other Requirement	Citation/Date
Environmental Quality	
National Environmental Policy Act of 1969	42 U.S.C. 4321 et seq.
Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act	40 CFR 1500 through 1508
“National Environmental Policy Act Implementing Procedures”	10 CFR 1021
<i>National Environmental Policy Act Compliance Program</i>	DOE Order 451.1B (October 26, 2000; Change 1, September 28, 2001); DOE Notice 451.1, Change to DOE Order 451.1B (October 6, 2006)
State Environmental Policy Act	RCW 43.21C
Settlement Agreement in re <i>State of Washington v. Bodman</i>	Civil No. 2:03-cv-05018-AAM, January 6, 2006
<i>Protection and Enhancement of Environmental Quality</i> , as amended by Executive Order 11991	Executive Order 11514

Table 8–1. Potentially Applicable Environmental, Safety, and Health Laws, Regulations, Orders, and Other Requirements (continued)

Law, Regulation, Order, or Other Requirement	Citation/Date
Environmental Quality (continued)	
<i>Environmental Protection Program</i>	DOE Order 450.1 (January 15, 2003; Change 2, December 7, 2005; Administrative Change 1, January 3, 2007)
Air Quality and Noise	
Clean Air Act of 1970, as amended	42 U.S.C. 7401 et seq.
“National Emission Standards for Hazardous Air Pollutants”	40 CFR 61
“National Emission Standards for Hazardous Air Pollutants for Source Categories”	40 CFR 63
Washington Clean Air Act	RCW 70.94
Washington State Air Pollution Control Regulations	WAC 173-400 through 173-495
“Ambient Air Quality Standards and Emission Limits for Radionuclides”	WAC 173-480
“Radiation Protection – Air Emissions”	WAC 246-247
Idaho Environmental Protection and Health Act	IC 39-100
Noise Control Act of 1972, as amended	42 U.S.C. 4901 et seq.
Water Resources	
Clean Water Act of 1972, as amended	33 U.S.C. 1251 et seq.
“EPA Administered Permit Programs: The National Pollutant Discharge Elimination System”	40 CFR 122 et seq.
Washington Water Pollution Control Act of 1945	RCW 90.48
“State Waste Discharge Permit Program”	WAC 173-216
“Underground Injection Control Program”	WAC 173-218
“Water Quality Standards for Ground Waters of the State of Washington”	WAC 173-200
“Water Quality Standards for Surface Waters of the State of Washington”	WAC 173-201A
Idaho Water Pollution Control Act of 1983	IC 39-3600 et seq.
“On-site Sewage Systems”	WAC 246-272
Safe Drinking Water Act of 1974, as amended	42 U.S.C. 300(f) et seq.
National Primary Drinking Water Regulations	40 CFR 141 through 149
Hanford Reach Study Act of 1988	P.L. 100-605
<i>Floodplain Management</i>	Executive Order 11988
“Compliance with Floodplain and Wetland Environmental Review Requirements”	10 CFR 1022
Hazardous Waste and Materials Management	
Resource Conservation and Recovery Act of 1976, as amended	42 U.S.C. 6901 et seq.
Washington State Hazardous Waste Management Act	RCW 70.105
“Dangerous Waste Regulations”	WAC 173-303
Model Toxics Control Act	RCW 70.105D
“Model Toxics Control Act – Cleanup”	WAC 173-340
Hanford Federal Facility Agreement and Consent Order (also known as the Tri-Party Agreement)	May 15, 1989, as amended
Federal Facility Compliance Act of 1992	P.L. 102-386

Table 8–1. Potentially Applicable Environmental, Safety, and Health Laws, Regulations, Orders, and Other Requirements (continued)

Law, Regulation, Order, or Other Requirement	Citation/Date
Hazardous Waste and Materials Management (continued)	
Interim Stabilization Consent Decree (No. CT-99-5076-EFS)	September 30, 1999, as amended
Idaho Site Treatment Plan and Consent Order for Federal Facility Compliance Act	November 1, 1995
Idaho Hazardous Waste Management Act of 1983	IC 39-4400 et seq.
Spent Fuel Settlement Agreement (also known as the Governor’s Agreement)	October 16, 1995
Toxic Substances Control Act of 1976	15 U.S.C. 2601 et seq.
Framework Agreement for Management of Polychlorinated Biphenyls in Hanford Tank Waste	August 31, 2000
Radioactive Waste and Materials Management	
Atomic Energy Act of 1954	42 U.S.C. 2011 et seq.
Low-Level Radioactive Waste Policy Act of 1980, as amended	42 U.S.C. 2021 et seq.
“Licensing Requirements for Land Disposal of Radioactive Waste”	10 CFR 61
Nuclear Waste Policy Act of 1982, as amended	42 U.S.C. 10101 et seq.
Waste Isolation Pilot Plant Land Withdrawal Act, as amended	P.L. 102-579, as amended by P.L. 104-201
“Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes”	40 CFR 191
<i>Radioactive Waste Management</i>	DOE Order 435.1 (July 9, 1999; Change 1, August 28, 2001)
<i>Real Property Asset Management</i>	DOE Order 430.1B (September 24, 2003; Change 1, February 8, 2008)
Ecological Resources	
Bald and Golden Eagle Protection Act of 1973, as amended	16 U.S.C. 668 through 668d
Endangered Species Act of 1973, as amended	16 U.S.C. 1531 et seq.
Natural Area Preserves Act	RCW 79.70
U.S. Fish and Wildlife Coordination Act	16 U.S.C. 661 et seq.
Migratory Bird Treaty Act of 1918, as amended	16 U.S.C. 703 et seq.
<i>Protection of Wetlands</i>	Executive Order 11990
Cultural and Paleontological Resources	
American Indian Religious Freedom Act of 1978	42 U.S.C. 1996
Antiquities Act of 1906, as amended	16 U.S.C. 431 through 433
Archaeological and Historic Preservation Act of 1960, as amended	16 U.S.C. 469 through 469c-1
Archaeological Resources Protection Act of 1979, as amended	16 U.S.C. 470aa et seq.
National Historic Preservation Act of 1966, as amended	16 U.S.C. 470 et seq.
“Protection of Historic Properties”	36 CFR 800
Programmatic Agreement Among the U.S. Department of Energy Richland Operations Office, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Office for the Maintenance, Deactivation, Alteration, and Demolition of the Built Environment on the Hanford Site, Washington	August 21, 1996
Native American Graves Protection and Repatriation Act of 1990	25 U.S.C. 3001 et seq.
<i>Protection and Enhancement of the Cultural Environment</i>	Executive Order 11593

Table 8–1. Potentially Applicable Environmental, Safety and Health Laws, Regulations, Orders, and Other Requirements (continued)

Law, Regulation, Order, or Other Requirement	Citation/Date
Cultural and Paleontological Resources (continued)	
<i>Indian Sacred Sites</i>	Executive Order 13007
<i>Consultation and Coordination with Indian Tribal Governments</i>	Executive Order 13175
<i>Trails for America in the 21st Century</i>	Executive Order 13195
<i>Preserve America</i>	Executive Order 13287
<i>American Indian Tribal Government Interactions and Policy</i>	DOE Order 144.1 (January 16, 2009)
Worker Safety and Health	
Occupational Safety and Health Act of 1970	29 U.S.C. 651 et seq.
“Occupational Radiation Protection”	10 CFR 835
“Worker Safety and Health Program”	10 CFR 851
<i>Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees</i>	DOE Order 440.1B (May 17, 2007)
<i>Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction, as amended by Executive Order 13286</i>	Executive Order 12699
Radiological Safety Oversight and Radiation Protection	
“Nuclear Safety Management”	10 CFR 830
<i>Facility Safety</i>	DOE Order 420.1B (December 22, 2005)
<i>Startup and Restart of Nuclear Facilities</i>	DOE Order 425.1C (March 13, 2003)
<i>DOE Radiological Health and Safety Policy</i>	DOE Policy 441.1 (April 26, 1996)
<i>Radiation Protection of the Public and the Environment</i>	DOE Order 5400.5 (February 8, 1990; Change 2, January 7, 1993)
<i>Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities</i>	DOE Order 5480.20A (November 15, 1994; Change 1, July 12, 2001)
Transportation	
Hazardous Materials Transportation Act of 1975, as amended	49 U.S.C. 5101 et seq.
“Packaging and Transportation of Radioactive Material”	10 CFR 71
<i>Packaging and Transportation Safety</i>	DOE Order 460.1B (April 4, 2003)
<i>Departmental Materials Transportation and Packaging Management</i>	DOE Order 460.2A (December 22, 2004)
Emergency Planning, Pollution Prevention, and Conservation	
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also known as Superfund)	42 U.S.C. 9601 et seq.
Emergency Planning and Community Right-to-Know Act of 1986	42 U.S.C. 11001 et seq.
Pollution Prevention Act of 1990	42 U.S.C. 13101 et seq.
<i>Federal Compliance with Pollution Control Standards, as amended by Executive Order 12580, Superfund Implementation</i>	Executive Order 12088
<i>Strengthening Federal Environmental, Energy, and Transportation Management</i>	Executive Order 13423

Table 8–1. Potentially Applicable Environmental, Safety and Health Laws, Regulations, Orders, and Other Requirements (continued)

Law, Regulation, Order, or Other Requirement	Citation/Date
Environmental Justice and Protection of Children	
<i>Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations</i>	Executive Order 12898
<i>Protection of Children from Environmental Health Risks and Safety Risks</i>	Executive Order 13045

Key: CFR=Code of Federal Regulations; DOE=U.S. Department of Energy; EPA=U.S. Environmental Protection Agency; IC=Idaho Code; P.L.=Public Law; RCW=Revised Code of Washington; U.S.C.=United States Code; WAC=Washington Administrative Code.

8.1.1 Environmental Quality

National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.). The purposes of NEPA of 1969, as amended, are to (1) declare a national policy that will encourage productive and enjoyable harmony between man and his environment; (2) promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; (3) enrich the understanding of the ecological systems and natural resources important to the Nation; and (4) establish a Council on Environmental Quality (CEQ). NEPA establishes a national policy requiring that Federal agencies consider the environmental impacts of major Federal actions significantly affecting the quality of the human environment before making decisions and taking actions to implement those decisions. Implementation of NEPA requirements in accordance with CEQ regulations (40 CFR 1500–1508) may result in a categorical exclusion, an environmental assessment and Finding of No Significant Impact, or an environmental impact statement (EIS). This *Draft TC & WM EIS* has been prepared in accordance with NEPA requirements, CEQ regulations (40 CFR 1500–1508), and DOE provisions for implementing the procedural requirements of NEPA (10 CFR 1021; DOE Order 451.1B, Change 1). It discusses reasonable alternatives and their potential environmental consequences.

State Environmental Policy Act (SEPA) (RCW 43.21C). The purposes of SEPA are to (1) declare a Washington State policy that will encourage productive and enjoyable harmony between man and his environment; (2) promote efforts that will prevent or eliminate damage to the environment and biosphere; (3) stimulate the health and welfare of man; and (4) enrich the understanding of the ecological systems and natural resources important to the state and Nation.

SEPA also specifies that an EIS shall be prepared on proposals for legislation and other major actions having a probable significant adverse environmental impact. SEPA does not legally apply to Federal agencies. Some states with similar laws generally require state agencies to perform a NEPA-like analysis before issuing permits. *Washington Administrative Code* (WAC) 197-11, which specifies the rules promulgated under SEPA, states that an agency (e.g., Washington State Department of Ecology [Ecology]) may adopt a Federal NEPA EIS as a substitute for preparing a SEPA EIS if (1) the requirements of WAC 197-11-600 and 197-11-630 are met and (2) the Federal NEPA EIS is not found inadequate.

The DOE Office of River Protection and Ecology both signed a Memorandum of Understanding on March 25, 2003 (DOE and Ecology 2003), for the “Environmental Impact Statement for Retrieval, Treatment, and Disposal of Tank Waste and Closure of Single-Shell Tanks at the Hanford Site, Richland, Washington” (“Tank Closure EIS”). The purpose of this Memorandum of Understanding was to clearly set out the responsibilities of each agency in cooperative preparation of the “Tank Closure EIS,” consistent with CEQ cooperating agency requirements (40 CFR 1501.6) and guidance. This Memorandum of Understanding was revised in January 2006 to more effectively carry out their respective responsibilities in complying with the applicable provisions of NEPA and SEPA (DOE and Ecology 2006). Under this revised Memorandum of Understanding, the Office of River Protection will continue as the lead agency, with overall responsibility to produce this *TC & WM EIS*, and Ecology will

continue as the cooperating agency. Ecology will separately review the *Final TC & WM EIS* and determine if the final EIS can be adopted in fulfillment of its own responsibilities under SEPA.

Settlement Agreement in re *State of Washington v. Bodman*, Civil No. 2:03-cv-05018-AAM, January 6, 2006. In March 2003, prior to the issuance of the *Final Hanford Site Solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement, Richland, Washington (HSW EIS)* (DOE 2004a) and Record of Decision (69 FR 39449), Ecology initiated litigation on issues related to the importation, treatment, and disposal of radioactive and hazardous waste generated off site as a result of nuclear defense and research activities. The court enjoined shipment of offsite transuranic (TRU) waste to Hanford for processing and storage pending shipment to the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico.

Ecology amended its March 2003 complaint in 2004, challenging the adequacy of the *HSW EIS* analysis of offsite waste importation. In May 2005, the court granted a limited discovery period, continuing the injunction against shipping offsite wastes to Hanford, including low-level radioactive waste (LLW) and mixed low-level radioactive waste (MLLW) (*State of Washington v. Bodman* [Civil No. 2:03-cv-05018-AAM]). In July 2005, while preparing responses to discovery requests from Ecology, Battelle Memorial Institute, DOE's contractor who assisted in preparing the *HSW EIS*, advised DOE of several differences in groundwater analyses between the *HSW EIS* and its underlying data.

DOE promptly notified the court and the state and, in September 2005, convened a team of DOE experts in quality assurance and groundwater analysis, as well as transportation and human health and safety impacts analysis, to conduct a quality assurance review of the *HSW EIS*. In January 2006, the team completed its *Report of the Review of the "Hanford Solid Waste Environmental Impact Statement (EIS)" Data Quality, Control and Management Issues (Quality Review)* (DOE 2006a). Because both Ecology and DOE have a shared interest in the effective cleanup of Hanford, DOE, Ecology, and the Washington State Attorney General's Office signed a Settlement Agreement ending the NEPA litigation on January 6, 2006. The agreement is intended to resolve Ecology's concerns about *HSW EIS* (DOE 2004a) groundwater analyses and to address other concerns about the *HSW EIS*, including those identified in the *Quality Review* (DOE 2006a).

The agreement called for an expansion of the "Tank Closure EIS" to provide a single, integrated set of analyses that will include all waste types analyzed in the *HSW EIS* (LLW, MLLW, and TRU waste); the expanded EIS is now this *Draft TC & WM EIS*. Pending finalization of this *Draft TC & WM EIS*, the *HSW EIS* remains in effect to support ongoing waste management activities at Hanford (including transportation of TRU waste to WIPP) in accordance with applicable regulatory requirements. The agreement also stipulates that when this *TC & WM EIS* has been completed, it will supersede the *HSW EIS*. Until that time, DOE will not rely on *HSW EIS* groundwater analyses for decisionmaking, and DOE will not import offsite waste to Hanford, with certain limited exemptions as specified in the agreement.

Executive Order 11514, *Protection and Enhancement of Environmental Quality* (March 5, 1970), as amended by Executive Order 11991 (May 24, 1977). This Executive order requires Federal agencies to continually monitor and control their activities to (1) protect and enhance the quality of the environment and (2) develop procedures to ensure the fullest practicable provision of timely public information and understanding of Federal plans and programs that may have potential environmental impact so that interested parties can submit their views. DOE has issued regulations (10 CFR 1021) and DOE Order 451.1B, *National Environmental Policy Act Compliance Program*, for compliance with this Executive order.

DOE Order 450.1, *Environmental Protection Program* (January 15, 2003; Change 1, January 24, 2005; Change 2, December 7, 2005; Administrative Change 1, January 3, 2007). Under DOE Order 450.1, it is DOE policy to conduct its operations in a manner that ensures the protection of public health, safety, and the environment through compliance with applicable Federal and state laws,

regulations, orders, and other requirements. The objective of this order is to implement sound stewardship practices that are protective of the air, water, land, and other natural and cultural resources impacted by DOE operations and by which DOE cost-effectively meets or exceeds compliance with applicable environmental, public health, and resource protection laws, regulations, and DOE requirements. This objective is to be accomplished by implementing environmental management systems at DOE sites. An environmental management system is a continuing cycle of planning, implementing, evaluating, and improving processes and actions that are undertaken to achieve environmental goals.

8.1.2 Air Quality and Noise

Federal, state, and local agencies enforce the standards and requirements of the Clean Air Act to regulate air emissions and the requirements of the Noise Control Act to regulate noise at facilities such as Hanford's and INL's. DOE must comply with these standards and requirements for any of the activities being considered under this *TC & WM EIS*. These standards and requirements are summarized below.

Clean Air Act of 1970, as amended (42 U.S.C. 7401 et seq.). The Clean Air Act is intended to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” Section 118 of the Clean Air Act (42 U.S.C. 7418) requires that each Federal agency with jurisdiction over any property or facility engaged in any activity that might result in the discharge of air pollutants comply with “all Federal, state, interstate, and local requirements” with regard to the control and abatement of air pollution.

Section 109 of the Clean Air Act (42 U.S.C. 7409 et seq.) directs EPA to set National Ambient Air Quality Standards (NAAQS) for criteria pollutants. EPA has identified and set national ambient air quality standards under Title 40 of the *Code of Federal Regulations*, Part 50 (40 CFR 50) for the following criteria pollutants: particulate matter, sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, and lead. Section 111 of the Clean Air Act (42 U.S.C. 7411) requires establishment of national standards of performance for new or modified stationary sources of atmospheric pollutants. Section 160 of the Clean Air Act (42 U.S.C. 7470 et seq.) requires that specific emission increases be evaluated prior to permit approval to prevent significant deterioration of air quality. Section 112 of the Clean Air Act (42 U.S.C. 7412) requires specific standards for releases of hazardous air pollutants (including radionuclides). These standards are implemented through state implementation plans.

Emissions of air pollutants from DOE facilities are regulated by EPA under 40 CFR 50–99. Emissions of radionuclides from DOE facilities and other hazardous air pollutants, including a release of asbestos during demolition and renovation activities, are regulated under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) program (40 CFR 61 and 40 CFR 63, respectively). EPA initially granted interim delegation of authority to the State of Washington to implement and enforce two NESHAPs for radionuclides, specifically, “Emissions of Radionuclides Other than Radon from DOE Facilities” (40 CFR 61, Subpart H) and “National Emission Standards for Radionuclide Emissions from Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H” (40 CFR 61, Subpart I). Additional delegations to local air agencies in Washington occurred in 1998 (63 FR 66054); delegation to Ecology and four local air pollution control agencies, including the Benton Clean Air Authority, now called the Benton Clean Air Agency, occurred in 2001 (66 FR 48211). Previous delegations of authority were updated in 2002 (67 FR 11417), and partial approval to implement and enforce specific subparts of the NESHAPs for radionuclide air emissions (i.e., Subparts A, B, H, I, K, Q, R, T, and W, as in effect on July 1, 2004, with a few specific exclusions) was granted to the Washington State Department of Health in 2006 (71 FR 32276).

Washington Clean Air Act (RCW 70.94) and Associated Regulations. Most of the provisions of the Washington Clean Air Act mirror the requirements of the Federal Clean Air Act. The Federal Clean Air Act establishes a minimum, or “floor,” for Washington air quality programs. The Washington Clean Air Act authorizes Ecology; the Department of Health; and several local agencies, including the Benton County Clean Air Agency (where Hanford is located), to implement provisions and programs consistent

with the Federal Clean Air Act. For example, the Washington Clean Air Act authorizes an operating permit program, enhanced civil penalties, administrative enforcement provisions, motor vehicle inspections, and provisions addressing ozone and acid rain.

Washington State also has an extensive set of regulations governing toxic air pollutants (WAC 173-460 through 173-495). These regulations are similar to the programs for regulating hazardous air pollutants under the Federal Clean Air Act. In contrast to the Federal Clean Air Act program, which applies to new and existing emission sources, the toxic air pollutant rules apply only to new sources and any modification of an existing source where the modification will increase emissions of toxic air pollutants. Ecology's toxic air pollutant rules are implemented under the New Source Review Program. Ecology's Nuclear Waste Program regulates air toxic and criteria pollutant emissions from Hanford. Ecology's implementing requirements (e.g., WAC 173-400, WAC 173-401, WAC 173-460) specify a review of new source emissions, permitting, applicable controls, reporting, notifications, and provisions of compliance with the general standards for applicable sources of Hanford emissions.

The Washington State Department of Health regulations, "Radiation Protection – Air Emissions" (WAC 246-247), contain standards and permit requirements for the emission of radionuclides to the atmosphere from DOE facilities based on Ecology standards, "Ambient Air Quality Standards and Emission Limits for Radionuclides" (WAC 173-480). Prior to beginning any work that would result in creating a new or modified source of radioactive airborne emissions, a Notice of Construction application must be submitted to the Washington State Department of Health for review and approval. Ensuring adequate emission controls, emissions monitoring/sampling, and/or annual reporting of air emissions are typical requirements for radioactive air emission sources. Hanford operates under state license No. FF-01 for such emissions. This license was incorporated into the Hanford air operating permit renewal, which was reissued by Ecology on December 29, 2006 (Poston et al. 2007:5.9).

The local air authority, Benton Clean Air Agency, enforces state regulations pertaining to detrimental effects, fugitive dust, incineration products, odor, opacity, asbestos, and sulfur oxide emissions. The agency also has been delegated authority to enforce the EPA asbestos regulations.

Compliance with the Clean Air Act requires both facility and sitewide compliance. DOE's *Annual Hanford Site Environmental Permitting Status Report* (DOE 2004b) identifies existing facility-specific and sitewide compliance activities and requirements. The air operating permit for Hanford was renewed and became effective in January 2007 (permit No. 00-05-006 renewal) (Poston et al. 2007:D.2). Activities conducted under all of the alternatives must be in compliance with the Hanford Air Operating Permit and applicable Federal, state, and local regulations. The air quality sections of Chapter 4 of this *TC & WMEIS* provide information on the assessment of compliance with applicable standards and appropriate air quality criteria and standards for each of the alternatives.

Several of the activities under the alternatives would involve construction of a source of air emissions. For new or modified nonradioactive air emissions, DOE would need to obtain a permit to construct from Ecology and would need to conduct a NESHAPs review prior to commencing construction. Prior to construction of any new or modified source of radioactive airborne emissions, DOE would need to submit a Notice of Construction application to the Washington State Department of Health for review and approval. New facilities would also be required to be included in the air operating permit through a permit modification after construction and startup.

Idaho Environmental Protection Health Act (IC 39-100). This act provides for development of air pollution control permitting regulations in the State of Idaho. Under EPA regulations, the State of Idaho has been delegated authority under the Clean Air Act to maintain the Primary and Secondary NAAQS (40 CFR 52) to issue permits under the Prevention of Significant Deterioration regulations (40 CFR 52.683), to enforce performance standards of new stationary sources, and to issue permits to operate. The Idaho State air pollution control permitting regulations are found under "Rules for the Control of Air Pollution in Idaho," Idaho Administrative Procedures Act (IDAPA) (IDAPA 58.01.01).

The State of Idaho also administers a permit program that regulates sources that are too small to qualify as a major source under Prevention of Significant Deterioration regulations. To date, the State of Idaho does not have authority delegated from EPA to administer the NESHAPs program regulating emissions of radionuclides at DOE facilities, so that authority remains with EPA. The air quality sections of Chapter 4 of this *TC & WM EIS* provide information on the assessment of compliance with applicable standards and appropriate air quality criteria and standards for each of the alternatives.

Noise Control Act of 1972, as amended (42 U.S.C. 4901 et seq.). Section 4 of the Noise Control Act of 1972, as amended, directs all Federal agencies to carry out “to the fullest extent within their authority” programs within their jurisdictions in a manner that furthers a national policy of promoting an environment free from noise jeopardizing health and welfare. Chapter 4 of this EIS addresses the impacts associated with the construction, operations, deactivation, or closure activities analyzed for each of the alternatives.

8.1.3 Water Resources

There are several statutes, orders, and regulations that DOE must comply with to protect the waters at Hanford; these are briefly discussed below, along with potential implication to this *TC & WM EIS*.

Clean Water Act of 1972, as amended (33 U.S.C. 1251 et seq.). The Clean Water Act, which amended the Federal Water Pollution Control Act, was enacted to “restore and maintain the chemical, physical, and biological integrity of the Nation’s water.” The Clean Water Act prohibits the “discharge of toxic pollutants in toxic amounts” to navigable waters of the United States. Section 313 of the Clean Water Act requires all branches of the Federal Government engaged in any activity that might result in a discharge or runoff of pollutants to surface waters to comply with Federal, state, interstate, and local requirements.

Section 404 of the Clean Water Act gives the U.S. Army Corps of Engineers permitting authority over activities that discharge dredge or fill materials into waters of the United States, including wetlands.

The Clean Water Act also provides guidelines and limitations for effluent discharges from point-source discharges and establishes the National Pollutant Discharge Elimination System (NPDES) permit program. The NPDES program is administered by EPA, pursuant to regulations in 40 CFR 122 et seq., and may be delegated to states. Sections 401 through 405 of the Water Quality Act of 1987 added Section 402(p) to the Clean Water Act, requiring that EPA establish regulations for permits for stormwater discharges associated with industrial activities, including construction activities disturbing 2 hectares (5 acres) or more. After March 2003, the threshold for obtaining a permit was lowered to 0.4 hectares (1 acre). Stormwater provisions of the NPDES program are set forth at 40 CFR 122.26. This program is administered by EPA in both Washington and Idaho. Permit modifications are required if discharge effluent is altered.

Hanford has one NPDES permit (No. WA-002591-7). This permit covers three active outfalls: outfall 001 for the 300 Area Treated Effluent Disposal Facility and outfalls 003 and 004 in the 100-K Area to the Columbia River. EPA’s NPDES Storm Water Multi-Sector General Permit No. WAR05A57F establishes the terms and conditions under which stormwater discharges associated with industrial activity are authorized for Hanford. This permit was issued in 2000 by EPA and expired on October 30, 2005. A new permit to replace it has not been issued. Facilities that obtained coverage under the 2000 Multi-Sector General Permit prior to its expiration are automatically granted an administrative continuance of permit coverage (Poston et al. 2007:5.11). For the construction of new facilities or modifications to existing facilities, DOE would need to develop written stormwater discharge plans that conform to requirements of the existing stormwater discharge permit. Hanford stormwater discharge permits would then need to be appended to include the additional or modified facility.

Washington Water Pollution Control Act of 1945 (RCW 90.48). This act applies to surface waters and groundwaters of the State of Washington and implements, at the state level, provisions of the Federal

Clean Water Act and Federal Safe Drinking Water Act (42 U.S.C. 300(f) et seq.). The Washington Water Pollution Control Act requires the development of state waste discharge permits and onsite sewage disposal system approvals and is administered by Ecology and the Washington State Department of Health. Regulations relating to water pollution and water quality include the following:

- “State Waste Discharge Permit Program” (WAC 173-216)
- “Water Quality Standards for Ground Waters of the State of Washington” (WAC 173-200)
- “Water Quality Standards for Surface Waters of the State of Washington” (WAC 173-201A)
- “On-Site Sewage System” (WAC 246-272)

Discharges from the 200 Area Treated Effluent Disposal Facility and Liquid Effluent Retention Facility, Waste Treatment Plant (WTP), and the Fast Flux Test Facility (FFTF) Ponds in the 400 Area are covered by state wastewater discharge permits issued by Ecology (Poston et al. 2007:5.11, D.2). The state derives its authority to administer the Underground Injection Control Program from *Revised Code of Washington* (RCW) 43.21A.445 whose intent is to satisfy the Federal Safe Drinking Water Act. DOE complies with State of Washington programs and applies for discharge permits or injection control permits as a matter of comity. Activities conducted under all of the alternatives must be in compliance with the applicable standards specified under the requirements listed above. The water resources sections of Chapter 4 provide information on compliance with these standards. If the selected action results in new or modified point-source discharges, DOE would need to modify its current permit.

Idaho Water Pollution Control Act (IC 39-3600). This act establishes a program to enhance and preserve the quality and value of water resources. The “Water Quality Standards” (IDAPA 58.01.02) and “Rules for the Reclamation and Reuse of Municipal and Industrial Wastewater” (IDAPA 58.01.17) require protection of designated water uses and establishment of water quality standards that will protect those uses. The State of Idaho has established groundwater quality standards and enforces them under state authority.

Safe Drinking Water Act of 1974, as amended (42 U.S.C. 300(f) et seq.). The primary objective of the Safe Drinking Water Act is to protect the quality of public drinking water supplies and sources of drinking water. The implementing regulations, administered by EPA unless delegated to states, establish standards applicable to public water systems. These regulations include maximum contaminant levels (including those for radioactivity) in public water systems, which are defined as water systems that have at least 15 service connections used by year-round residents or regularly serve at least 25 year-round residents. These standards apply to Columbia River water at community water supply intakes downstream of Hanford. The EPA regulations implementing the Safe Drinking Water Act are found in 40 CFR 141–149. For radioactive material, the regulations specify that the average annual concentration of manmade radionuclides in drinking water, as delivered to the user by such a system, shall not produce a dose equivalent to the total body or an internal organ greater than 4 millirem per year beta-gamma activity (40 CFR 141.16(a)). They further specify a concentration limit for gross alpha particle activity (excluding radon and uranium) of 15 picocuries per liter and for uranium of 0.03 milligrams per liter (40 CFR 141.66). Other programs established by the Safe Drinking Water Act include the Sole Source Aquifer Program, the Wellhead Protection Program, and the Underground Injection Control Program.

The groundwater analysis conducted for this *TC & WMEIS* consists of a comparison of the projected water quality with relevant regulatory standards, including standards established under the Safe Drinking Water Act that apply at the point of delivery. Results of this analysis are summarized in the groundwater resources sections of Chapter 5 and Appendix O of this EIS.

Executive Order 11988, Floodplain Management (May 24, 1977). This order (implemented by DOE in 10 CFR 1022) requires Federal agencies to establish procedures to ensure that the potential effects of flood hazards and floodplain management are considered for any action undertaken in a floodplain, and that floodplain impacts be avoided to the extent practicable. As discussed in Chapter 3 of this EIS, the areas of Hanford and INL being considered for this EIS are not located in a floodplain.

8.1.4 Hazardous Waste and Materials Management

All the alternatives analyzed for this EIS involve the management of hazardous and mixed wastes. These waste types must be managed in compliance with the applicable requirements. For all alternatives, hazardous waste and nonradioactive hazardous components of mixed waste would be stored at Hanford in accordance with applicable EPA and Ecology regulations. Ultimate treatment and disposal would be conducted in accordance with applicable standards and regulations at Hanford or offsite locations. The waste management sections of Chapter 4 provide information on the generation and management of hazardous and mixed wastes under each of the alternatives. Following are brief summaries of potentially applicable hazardous waste and materials management requirements.

Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.). The transportation and treatment, storage, and disposal (TSD) of solid and hazardous wastes are regulated by EPA under the authority of RCRA of 1976, as amended. The EPA regulations implementing RCRA (40 CFR 260–282) define and identify hazardous waste; establish standards for waste transportation and TSD; and require permits for persons engaged in hazardous waste activities.

EPA defines waste that exhibits the characteristics of ignitability, corrosivity, reactivity, or toxicity as “characteristic” hazardous waste. EPA has also identified certain materials as hazardous waste by listing them in RCRA regulations. These materials are referred to as “listed” hazardous waste. “Mixed waste” is waste that contains both a hazardous waste component regulated under Subtitle C of RCRA and a radioactive component consisting of source, special nuclear, or byproduct material regulated under the AEA. The definition of “solid waste” in RCRA specifically excludes the radiological component (i.e., source, special nuclear, or byproduct materials as defined by the AEA). As a result, mixed waste is regulated under multiple authorities: by RCRA, as implemented by EPA or authorized states for the hazardous waste components, and by the AEA, as implemented by either DOE or the U.S. Nuclear Regulatory Commission (NRC) for the radiological components.

RCRA applies mainly to owners and operators of facilities that generate and manage hazardous waste. This act imposed management requirements on generators and transporters of hazardous waste and upon owners and operators of TSD facilities. EPA has established a comprehensive set of regulations governing all aspects of TSD facilities, including location, design, operations, and closure.

Any state that seeks to administer and enforce a hazardous waste program pursuant to RCRA may apply to EPA for authorization to administer its state program in lieu of the Federal program. EPA has authorized the State of Washington to implement the state hazardous waste management program in lieu of the Federal RCRA program, except for delisting authority and variances from the land-disposal-restriction treatment standard, and to the State of Idaho. The following provides additional information on land-disposal-restriction treatment standards specific to the activities addressed by this *TC & WM EIS*.

Land-Disposal-Restriction Requirements. The Hazardous and Solid Waste Amendments of 1984 added provisions to RCRA to prohibit the land disposal of hazardous waste that does not meet specific treatment standards. RCRA land disposal restrictions require that hazardous waste be treated to meet applicable standards set forth in 40 CFR 268 prior to disposal. The standards may consist of required treatment technologies or concentration levels that must be achieved for hazardous constituents. Once hazardous waste is treated in accordance with the applicable treatment standards, it may be disposed of under applicable requirements. The tank waste is considered to be mixed waste (i.e., contains both RCRA hazardous waste constituents and radiological constituents regulated under the AEA). Therefore, the tank waste must be treated to meet the applicable treatment standards. Under each of the action alternatives, DOE would need to determine whether the treatment proposed meets the applicable treatment standards for that waste stream. If a specified treatment standard cannot be met, then DOE would need to apply for a treatment variance from that treatment standard or demonstrate equivalent treatment. DOE is preparing a treatability variance for the tank waste to allow vitrification as the treatment method for all the hazardous waste codes that apply to the tank

waste. Currently, vitrification is the treatment standard for high-level radioactive waste (HLW) that exhibits the characteristic of toxicity for metals and corrosivity. Hanford's HLW also exhibits the characteristic of corrosivity and toxicity for organics and contains listed hazardous waste. While HLW would be treated by vitrification, low activity waste and secondary waste would still need to meet the applicable treatment standards.

Washington State Hazardous Waste Management Act (RCW 70.105). The Washington State Hazardous Waste Management Act gives Ecology authority to regulate the disposal of hazardous waste in Washington and to implement waste reduction and prevention programs. Ecology has adopted regulations that are found in "Dangerous Waste Regulations" (WAC 173-303). Except as noted above, Washington State has been authorized to implement the state RCRA program within the state's borders in lieu of the federal program. Ecology's regulations are consistent with, and cover a larger universe of materials than, the Federal hazardous waste program. The waste categories defined in Ecology's regulations (WAC 173-303) are *dangerous waste*, *acutely hazardous waste*, *extremely hazardous waste*, and *special waste*. Following are discussions of two specific areas of compliance with the State of Washington hazardous waste management program (i.e., permits and closure) and their relation to the activities considered in this *TC & WM EIS*.

Hazardous/Dangerous Waste Permit. The owner/operator of a dangerous waste facility that treats, stores, disposes of, or recycles dangerous waste must obtain a permit in accordance with WAC 173-303-800 through 173-303-840 covering the active life, closure period, groundwater protection compliance period, and, for any regulated unit (as defined in WAC 173-303-040) or for any facility that at closure does not meet the removal or decontamination limits of WAC 173-303-610(2)(b), the postclosure care period, unless they demonstrate closure by removal or decontamination as provided under WAC 173-303-800(9) and (10). If a postclosure permit is required, the permit must address applicable groundwater monitoring, unsaturated zone monitoring, corrective action, and postclosure care requirements of WAC 173-303.

Hanford is considered a single facility for purposes of RCRA and the Washington State Hazardous Waste Management Act. Hanford's RCRA permit (No. WA7890008967) was originally issued in two portions, one by EPA Region 10 and the other by Ecology. The EPA portion of the Hanford RCRA permit covered the Hazardous and Solid Waste Amendments. The Ecology portion of the permit covered the dangerous waste provisions and was most recently modified by Ecology in February 2001. The Ecology portion of the permit was issued on September 27, 1994. The permit is the foundation for RCRA permitting on Hanford in accordance with provisions set forth in the Hanford Federal Facility Agreement and Consent Order (also known as the Tri-Party Agreement [TPA]) (Ecology, EPA, and DOE 1989). The permit expired on September 27, 2004, and DOE continues to operate under the old permit until a revised permit is issued by Ecology. Ecology is now fully authorized to implement the dangerous waste program in lieu of the Federal RCRA program; therefore, there is no need or authority for EPA to separately issue a hazardous solid waste amendment component of the Hanford permit (Bartus 2008). Ecology is working on a draft of the revised permit (Poston et al. 2007). The RCRA permits, along with other environmental permits covering Hanford, are described in the *Annual Hanford Site Environmental Permitting Status Report* (DOE 2004b).

This *TC & WM EIS* analyzes new facilities that will be permitted under RCRA and existing facilities that are operating under interim status requirements. The double-shell tank (DST) farm continues to operate under interim status. The single-shell tanks (SSTs) are expected to be closed in accordance with WAC 173-303 and the TPA. A final RCRA Part B permit is being obtained for the WTP on an incremental basis as the facility design matures. Any new TSD units would require a modification of the Hanford RCRA permit. An RCRA Part B permit application for the 200-East Area Integrated Disposal Facility was submitted to Ecology in 2005.

Treatment or disposal activities at other sites may require RCRA permits or approvals. The State of New Mexico carries out programs similar to the State of Washington's in which the Federal requirements are enforced under state law. Therefore, any hazardous waste management activities taking place in other states as a result of implementing one of the alternatives would be subject to the hazardous waste requirements of that particular state.

RCRA Closure. When hazardous waste management facilities cease operations, they must be closed in a manner that ensures they will not pose a future threat to human health and the environment. RCRA provides for two types of closure for hazardous waste tanks: (1) closure by removal, or decontamination (referred to as "clean closure"), and (2) closure with waste in place, or "landfill closure." The premise of clean closure is that all the hazardous waste has been removed from the RCRA-regulated unit, and any releases at or from the unit have been remediated so that further regulatory control under RCRA Subtitle C is not necessary to protect human health and the environment. The Action Plan (Attachment II to the TPA) (Ecology, EPA, and DOE 1989) presents specific requirements and milestones that are applicable to tank system closure and generally requires that the process to close any unit be carried out in accordance with the applicable requirements of WAC 173-303 and 40 CFR 270.1.

For closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste and manage them as dangerous waste (WAC 173-303-640).

If the owner or operator demonstrates that all contaminated soils cannot practicably be removed or decontaminated, then the owner or operator must close the tank system and perform postclosure care in accordance with closure and postclosure care requirements that apply to a hazardous waste landfill (WAC 173-303-640(8)(b)). A postclosure care permit covering maintenance, monitoring, and corrective action provisions would be issued.

Ecology's regulations for closure (WAC 173-303-610) state that when the removal or decontamination of dangerous waste, waste residues, or equipment, bases, liners, soils, or other materials containing or contaminated with dangerous waste or waste residue is required, then such removal or decontamination must ensure that the levels of dangerous waste or dangerous waste constituents or residues do not exceed the following:

- For soils, groundwater, surface water, and air, the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act regulations (WAC 173-340) as incorporated by the dangerous waste regulations. Primarily, these will be numeric cleanup levels.
- For all structures, equipment, bases, liners, etc., clean closure standards that will be set by Ecology on a case-by-case basis in accordance with the closure performance standards of WAC 173-303-610(2)(a)(ii) and in a manner that minimizes or eliminates postclosure escape of dangerous waste constituents.

The state has the ability to use alternative closure requirements in WAC 173-303-610(1)(e). The Tank Closure No Action Alternative and Tank Closure Alternative 2A of this *TC & WM EIS* do not address SST system closure, which is not consistent with the commitments for tank closure in the TPA. Tank Closure Alternatives 2B, 3A, 3B, 3C, 5, and 6C address SST system closure as landfills. Tank Closure Alternative 4 addresses SST system closure as a combination of a landfill and clean closure of certain tank farms. Tank Closure Alternatives 6A and 6B address SST system closure under the clean closure scenario.

Model Toxics Control Act (RCW 70.105D). The Model Toxics Control Act is implemented through the Hazardous Waste Cleanup – Model Toxics Control Act regulations found under WAC 173-340. The

primary goal of these regulations is to provide a workable process to accomplish effective and expeditious cleanups that are not being conducted under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. 9601) in a manner that protects human health and the environment. It is primarily intended to address releases of hazardous substances caused by past activities, although its provisions may be applied to potential and ongoing releases of hazardous substances from current activities. They are also applicable under the state corrective action authority (WAC 173-303-64620). These regulations provide methodologies for calculating numeric cleanup levels for soils, groundwater, surface water, and air.

Washington State Initiative 297, the Cleanup Priority Act. Initiative 297, known as the Cleanup Priority Act, was passed by Washington State voters in November 2004. The Cleanup Priority Act was intended to add a new chapter to the Mixed Radioactive and Hazardous Waste law (RCW 70.105E) and would have, among other things, restricted importing offsite waste to Hanford, set cleanup standards for radioactive releases, and required DOE to pay a new mixed-waste surcharge. The U.S. Department of Justice challenged the initiative, arguing it violated the U.S. Constitution. The Federal District Court agreed and ruled the initiative “invalid in its entirety” because it was preempted by Federal law, violated the Commerce Clause, and violated the principle of sovereign immunity. The State of Washington appealed the ruling, but the Ninth Circuit Court of Appeals affirmed the lower court, declaring the initiative was preempted by the AEA.

Hanford Federal Facility Agreement and Consent Order, May 15, 1989, as amended (Ecology, EPA, and DOE 1989). The TPA is an enforceable agreement among Ecology, EPA, and DOE for achieving compliance at Hanford with RCRA (42 U.S.C. 6901 et seq.); CERCLA (42 U.S.C. 9601 et seq.); and the Washington State Hazardous Waste Management Act (RCW 70.105). This agreement (1) defines RCRA and CERCLA cleanup commitments; (2) establishes responsibilities; (3) provides a basis for budgeting; and (4) reflects a concerted goal to achieve regulatory compliance and remediation with enforceable milestones (Poston et al. 2007:3.1).

The milestones governing the FFTF deactivation activities are defined in the TPA Milestone M-81-00 series and related M-20-29B milestones. A three-phased process is delineated in the TPA for decontamination and decommissioning of key facilities; Phase 1 is Transition or Deactivation, Phase 2 is Surveillance and Maintenance, and Phase 3 is Disposition.

For the SSTs, the TPA (as supplemented by the Interim Stabilization Consent Decree) lays out a process and schedule to remove pumpable liquids, retrieve solids, and close the SST system in lieu of achieving full compliance with RCRA requirements. The TPA milestones applicable to tank farms are provided in the following series: M-20 (immobilized low-activity waste [ILAW] and immobilized HLW [IHLW] facility RCRA permitting); M-23 (SST leak detection and integrity); M-43 (DST upgrades); M-45 (SST retrieval and closure); M-46 (DST space); M-47 (waste feed delivery); M-48 (DST integrity); and M-90 (ILAW and IHLW facility design, construction, and operations). The TPA also lays out the process for submittal, review, and approval of RCRA permit applications and closure plans (CH2M HILL 2003:B-2). In addition, the TPA lays out the process and authority to operate non-RCRA-compliant SSTs pending closure and identifies the process and procedures for SST system closure under RCRA.

It is assumed for each of the technologies evaluated in detail that remediation and closure decisions would be integrated with nearby CERCLA waste sites. Because of the number and location of waste sites surrounding the SST farms, there is a need to integrate decisions on remediation and closure (including surface barrier design). The TPA provides a means to integrate RCRA/CERCLA decisions to prevent conflicting requirements and resolve disputes. This is also a consideration for DST farm closure decisions. However, decisions on disposition of the DST farms are governed by WAC 173-303. This *TC & WM EIS* does not address existing-DST closure decisions nor remediation of contaminated groundwater. Decisions on DST closure would be addressed at a later date, subject to appropriate NEPA review. Groundwater contamination resulting from past leaks is currently being evaluated under the

RCRA Facility Investigation/Corrective Measures Study process (DOE 2003:5-2). Groundwater contamination in the 200 Areas generally is being addressed under CERCLA.

To the extent that the alternatives do not meet all of the commitments of the TPA, the TPA requires DOE to request modification of the agreement prior to proceeding with work that is inconsistent with those commitments. The TPA is involved in legal litigation; the results of this litigation may not match the timeframes laid out in the alternatives, which are included to provide the reader a range of time (e.g., years, decades) in which activities would be executed. In some cases, these timeframes have been modified to specifically examine how infrastructure, design life, and mission duration influence the alternatives and resource areas.

Federal Facility Compliance Act of 1992 (P.L. 102-386). The Federal Facility Compliance Act, enacted on October 6, 1992, amended RCRA Section 6961 and other sections and requires DOE to prepare plans that develop treatment capacity for mixed waste stored or generated at each facility, except for those facilities subject to a permit that establishes a schedule for treatment of such waste or an existing agreement or order governing the treatment of such waste to which the state is a party. The host state and/or EPA must approve each plan.

The State of Washington, EPA, and DOE had an existing plan (i.e., the TPA) addressing compliance with the storage prohibition for mixed waste at the time this law was enacted. Therefore, Hanford was not required to develop a new plan. A violation of the TPA may concurrently be a violation of the Federal Facility Compliance Act (i.e., the State of Washington may seek judicial enforcement under Title 42 of the *United States Code*, Section 6901 et seq. [42 U.S.C. 6901 et seq.]).

DOE and the State of Idaho have an approved plan, known as the “Site Treatment Plan,” and associated consent order for INL. The INL Site Treatment Plan, Section 4.5, identifies the process for pretreatment and post-treatment storage at INL of offsite mixed waste. The process identified in the INL Site Treatment Plan, Section 4.5, requires approval of the treatment plan by the State of Idaho Department of Environmental Quality (IDEQ). Approval of the plan would allow for up to 6 months pre- and post-treatment storage of the offsite mixed waste. The process also requires the notification of IDEQ (1) of the proposed schedule subsequent to approval of the treatment plan and addition of the offsite waste stream to the list contained in Section 4.5, Table 4-5, and (2) upon actual receipt of offsite radioactive sodium and remote-handled special components; completion of the primary treatment step; and offsite shipment of product, waste, and treatment residue.

Interim Stabilization Consent Decree (No. CT-99-5076-EFS, September 30, 1999, as amended). This consent decree established a court-enforceable, technically sound schedule for pumping liquid nuclear waste from the remaining 29 unstabilized SSTs. The key elements of the consent decree include:

- Pumping the tanks that pose the greatest environmental risk first, thus providing additional protection for the Columbia River and public health.
- Accelerating the schedule for pumping so that 98 percent of approximately 23.5 million liters (6.2 million gallons) of remaining pumpable liquid is removed by September 30, 2003, with the final 2 percent scheduled to be removed by September 30, 2004 (this was completed).
- Increasing DOE funding to a level that supports successful execution of the new schedule for tank stabilization.

Idaho Hazardous Waste Management Act of 1983 (IC 39-4400 et seq.). The State of Idaho has been given authority by EPA to enact and carry out a hazardous waste program that enables the state to assume primacy over hazardous waste management in the State of Idaho. This includes authority to issue permits for hazardous waste TSD. The Idaho regulations include requirements for hazardous waste generators, transporters, and management facilities, as well as detailed procedures for permitting these activities.

Under the state's law (IC 39-4404), regulations may not be promulgated that impose conditions or requirements more stringent or broader in scope than RCRA or the RCRA regulations of EPA.

Spent Fuel Settlement Agreement (also known as the Governor's Agreement) (October 16, 1995).

This agreement allows INL to receive spent nuclear fuel (SNF) and mixed waste from off site and establishes schedules for the treatment of existing HLW, TRU waste, mixed waste, and removal of SNF from the state. This agreement states that any and all treatable waste shipped into the State of Idaho for treatment at INL shall be treated within 6 months of receipt at the facility and shipped off site within 6 months of treatment. DOE may request an exception to the 6-month time period on a case-by-case basis, considering factors at the shipping site such as health and safety concerns, insufficient permitted storage capacity, and base or site closures. This agreement further states that DOE shall continue to use the Federal Facility Compliance Act process, as facilitated by the National Governors Association, to determine what locations are suitable for MLLW treatment and storage.

Toxic Substances Control Act of 1976 (15 U.S.C. 2601 et seq.). The Toxic Substances Control Act provides EPA with the authority to require testing of chemical substances entering the environment and to regulate them as necessary. EPA is also authorized to impose strict limitations on the use and disposal of polychlorinated biphenyls (PCBs), chlorofluorocarbons, asbestos, dioxins, certain metal-working fluids, and hexavalent chromium. The EPA regulations that establish prohibitions of and requirements for PCBs and PCB items are found in 40 CFR 761, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions." Removal of the two PCB transformers remaining at FTF would require disposition in compliance with this act.

Framework Agreement for Management of Polychlorinated Biphenyls in Hanford Tank Waste (August 31, 2000).

Some Hanford DSTs contain PCB remediation waste, which is waste containing PCBs as a result of a spill, release, or other unauthorized disposal and is regulated under the Toxic Substances Control Act. Therefore, the waste feed to the vitrification plant will also contain PCB remediation waste. On August 31, 2000, DOE, EPA Region 10, and Ecology signed the Framework Agreement for the Management of Polychlorinated Biphenyls in Hanford Tank Waste (EPA, DOE, and Ecology 2000). The agreement states that, "DOE, EPA and Ecology will pursue a rational path based on a risk-based disposal approval option per Title 40 of the *Code of Federal Regulations* 761.61(c) for the management of PCBs remediation waste." Since that time, DOE has submitted two risk-based disposal applications to EPA Region 10 for their approval. The first application, titled "Transmittal of Toxic Substance Control Act (TSCA) Risk-Based Disposal Application for the Double Shell Tank (DST) System for 2001," was submitted on January 15, 2002. The second application, titled "Application for Risk-Based Disposal Approval for PCBs Hanford 200 Area Liquid Waste Processing Facilities," was submitted on February 28, 2002. The various action alternatives analyzed in this *TC & WMEIS* will require compliance with the Framework Agreement for PCBs and the resulting PCB remediation waste program.

8.1.5 Radioactive Waste and Materials Management

All the alternatives analyzed for this *TC & WMEIS* involve the management of radioactive waste and materials. Radioactive waste and materials must be managed in compliance with the applicable requirements. Under all alternatives, the radioactive waste and the radioactive components of mixed waste would be stored at Hanford in accordance with applicable DOE requirements. Ultimate treatment and disposal would be conducted in accordance with applicable standards and regulations at Hanford or offsite locations. The waste management sections of Chapter 4 of this EIS provide information on the generation and management of radioactive and mixed wastes under each of the alternatives. Following are brief summaries of potentially applicable radioactive waste and materials management requirements.

Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.). The AEA provides fundamental jurisdictional authority to DOE and NRC over governmental and commercial use of nuclear materials. The AEA authorizes DOE to establish standards to protect health and minimize dangers to life or property for

activities under DOE's jurisdiction. DOE has issued a series of departmental orders to establish an extensive system of standards and requirements to ensure safe operation of DOE facilities. DOE regulations are found in Title 10 of the CFR. The DOE regulations that are the most relevant to radioactive waste and materials management include:

- “Nuclear Safety Management” (10 CFR 830)
- “Occupational Radiation Protection” (10 CFR 835)
- “Byproduct Material” (10 CFR 962)

The AEA also gives EPA the authority to develop generally applicable standards for protection of the general environment from radioactive materials. EPA has promulgated several regulations under this authority. The EPA regulation that is the most relevant to radioactive waste and materials management activities addressed by this EIS is “Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes” (40 CFR 191).

Low-Level Radioactive Waste Policy Act of 1980, as amended (42 U.S.C. 2021 et seq.). This act amended the AEA to specify that the Federal Government (i.e., DOE and NRC) is responsible for disposal of LLW. If authorized by NRC under interstate compacts, states may regulate disposal of LLW from commercial sources. DOE remains responsible for the disposition of defense (DOE and U.S. Navy origin) LLW that will require management under any of the alternatives analyzed in this *TC & WM EIS*.

“Licensing Requirements for Land Disposal of Radioactive Waste” (10 CFR 61). The regulations in 10 CFR 61 establish, for land disposal of LLW, the procedures, criteria, and terms and conditions upon which NRC issues licenses for the disposal of radioactive waste containing byproduct, source, and special nuclear material. These regulations do not apply to HLW, or DOE-managed LLW, but do apply to LLW, including waste designated as Class A, B, or C radioactive waste managed in commercial facilities. Disposal facilities for radioactive waste other than DOE-regulated facilities would have to obtain an NRC or agreement state license and comply with these regulations.

Nuclear Waste Policy Act of 1982, as amended (42 U.S.C. 10101, et seq.). The Nuclear Waste Policy Act directed DOE to characterize and evaluate the Yucca Mountain, Nevada, site for suitability as a potential repository for disposal of commercial SNF and HLW. The act also directed the President to evaluate the need for a separate repository for HLW resulting from atomic energy defense activities. On April 30, 1985, President Reagan found “no basis to conclude that a defense only repository is required...” (DOE 1985). As a result of this finding, HLW from atomic energy defense activities may be disposed of in the proposed repository along with SNF. After passage by the U.S. House of Representatives and U.S. Senate, on July 23, 2002, President Bush signed House Joint Resolution 87 approving the site at Yucca Mountain for the development of a repository for the disposal of HLW and SNF, pursuant to the Nuclear Waste Policy Act.

As indicated in the Obama Administration's fiscal year 2010 budget request, the Administration intends to terminate the Yucca Mountain program while developing nuclear waste disposal alternatives. Notwithstanding the decision to terminate the Yucca Mountain program, DOE remains committed to meeting its obligations to manage and ultimately dispose of HLW and SNF. The Administration intends to convene a blue ribbon commission to evaluate alternative approaches for meeting these obligations. The commission will provide the opportunity for a meaningful dialogue on how best to address this challenging issue and will provide recommendations that will form the basis for working with Congress to revise the statutory framework for managing and disposing of HLW and SNF.

Waste Isolation Pilot Plant Land Withdrawal Act, as amended (P.L. 102-579). The Waste Isolation Pilot Plant Land Withdrawal Act withdrew land from the public domain for the purposes of creating and operating WIPP, the geologic repository in New Mexico designated as the national disposal site for defense TRU waste. In addition to establishing the location for the facility, the Land Withdrawal Act also defines the characteristics and amount of waste that will be disposed of at the facility. The amendments

to the Waste Isolation Pilot Plant Land Withdrawal Act exempt waste designated by the Secretary of Energy for disposal at WIPP from the RCRA land disposal restrictions. However, these amendments do not exempt mixed TRU waste from other RCRA requirements. WIPP does have an RCRA permit and can accept mixed TRU waste. On May 15, 2003, EPA Region 6 approved DOE's request to dispose of TRU waste and mixed TRU waste containing PCBs at WIPP subject to certain "conditions of approval." A decision for disposal at WIPP will not be made until the waste meets the (1) WIPP Waste Acceptance Criteria, with special emphasis on the waste determination as delineated in the WIPP recertification decision by EPA in March 2006; and (2) regulatory eligibility requirements for disposal as described in the WIPP hazardous waste facility permit.

“Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes” (40 CFR 191). The regulations in 40 CFR 191 establish radiation protection standards for the management and storage of SNF, HLW, and TRU waste at (1) facilities regulated by NRC or agreement states and (2) disposal facilities operated by DOE that are not regulated by NRC or agreement states. The regulations also establish limitations on radiation doses, which may occur after closure of the disposal system. These standards include both individual protection requirements and groundwater protection standards.

Under Tank Closure Alternatives 2B, 3A, 3B, 3C, 4, 5, and 6C, some portion of the tank waste would remain in the tanks after retrieval and be subjected to closure activities as landfills. If the residual waste in some SSTs is defined as TRU waste, the closure of these tanks as landfills could potentially be considered TRU waste disposal as defined by 40 CFR 191. The options that would be available to DOE include (1) managing the closed tanks as a TRU waste disposal site according to 40 CFR 191 requirements or (2) developing alternative disposal criteria through DOE and EPA rulemaking.

DOE Order 435.1, *Radioactive Waste Management* (July 9, 1999; Change 1, August 28, 2001). This order and its associated manual and guidance establish responsibilities and requirements for the management of DOE HLW, TRU waste, LLW, and the radioactive component of mixed waste. These documents provided detailed radioactive waste management requirements, including waste incidental to reprocessing determinations; waste characterization, certification, and TSD; and radioactive waste facility design and closure.

The terms “incidental waste” and “waste incidental to reprocessing” refer to a process for identifying waste streams that are incidental to SNF reprocessing, and are subsequently managed as LLW or TRU waste, if the waste incidental to reprocessing requirements contained in DOE Manual 435.1-1 are met. Thus, it is a process by which DOE can make a determination that, for example, waste residues remaining in tanks, equipment, or transfer lines can be managed as LLW or TRU waste if the requirements in Section II.B of DOE Manual 435.1-1 have been or will be met. These requirements are divided into two processes, the “citation” process and the “evaluation” process.

Waste resulting from processing SNF that is determined to be incidental to reprocessing is not HLW and shall be managed under DOE's regulatory authority in accordance with the requirements for LLW or TRU waste, as appropriate. When determining whether SNF processing plant wastes are another waste type or HLW, either the citation or evaluation process shall be used. In July 2003, parts of DOE Order 435.1 dealing with the procedures for determining waste incidental to reprocessing were declared invalid by the U.S. District Court for the District of Idaho in *Natural Resources Defense Council v. Abraham*, 271 F. Supp.2d 1260 (D. Id. 2003). On November 5, 2004, the court's decision was reversed on appeal by the U.S. Court of Appeals for the Ninth Circuit and remanded to the District Court with instructions to dismiss the case, *Natural Resources Defense Council v. Abraham*, 388 F.3d 701 (9th Cir. 2004). On March 6, 2006, the District Court dismissed the case. Some alternatives analyzed in this *TC & WM EIS* evaluate SST system closure, as well as the disposal, at Hanford, of ILAW, ancillary equipment, WTP melters, and other supplemental waste streams meeting Hanford Site Solid Waste Acceptance Criteria. DOE would proceed with SST system closure and disposal of these wastes only if closure and disposal activities comply with applicable laws. LLW and MLLW disposal facilities that

would be sited, constructed, and operated under the alternatives analyzed in this EIS would be subject to the appropriate DOE Manual 435.1-1 requirements. Additionally, closure of HLW facilities, including the tank farms, would also be subject to the DOE Manual 435.1-1 requirements.

DOE Order 430.1B, *Real Property Asset Management* (September 24, 2003; Change 1, February 8, 2008). This order establishes a corporate, holistic, and performance-based approach to real property life-cycle asset management that links real property asset planning, programming, budgeting, and evaluation to program mission projections and performance outcomes. This order also identifies requirements and establishes reporting mechanisms and responsibilities for real property asset management. Planning for disposition must be initiated when real property assets are identified as no longer required for current or future programs. Disposition includes stabilizing, preparing for reuse, deactivating, decommissioning, decontaminating, dismantling, demolishing, and/or disposing of real property assets. DOE must ensure compliance with this order during the decontamination and closure phases of the activities being considered under Tank Closure Alternatives 2B, 3A, 3B, 3C, 4, 5, 6A, 6B, and 6C; FFTF Decommissioning Alternatives 2 and 3; and Waste Management Alternatives 2 and 3 (see Chapter 2 of this EIS for discussions of alternatives).

8.1.6 Ecological Resources

The action alternatives analyzed for this EIS require new facilities to be constructed and borrow materials to be excavated, which would result in ground disturbances. As a result of potential ground-disturbing activities, DOE is required by certain statutes and other requirements to ensure that proposed activities will not adversely impact the ecological resources located in those areas. Following are summaries of these legal requirements, which also require consultations with the appropriate agency prior to initiation of such actions. Section 8.3 of this chapter discusses DOE activities regarding consultations with the appropriate agency. The specific results of these consultations are provided in the ecological resources sections of Chapter 4.

Bald and Golden Eagle Protection Act of 1973, as amended (16 U.S.C. 668–668d). The Bald and Golden Eagle Protection Act, as amended, makes it unlawful to take, pursue, molest, or disturb bald (American) and golden eagles, their nests, or their eggs anywhere in the United States. A permit must be obtained from the U.S. Department of Interior (DOI) to relocate a nest that interferes with resource development or recovery operations.

Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). The Endangered Species Act is intended to prevent the further decline of endangered and threatened species and to restore these species and habitats. Section 7 of the act requires Federal agencies having reason to believe that a prospective action may affect an endangered or threatened species or its habitat to consult with the U.S. Fish and Wildlife Service (USFWS) of DOI or the National Marine Fisheries Service of the U.S. Department of Commerce to ensure that the action does not jeopardize the species or destroy its habitat (50 CFR 17). If, despite reasonable and prudent measures to avoid or minimize such impacts, the species or its habitat would be jeopardized by the action, a review process is specified to determine whether the action may proceed as an incidental taking.

U.S. Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.). The U.S. Fish and Wildlife Coordination Act promotes effective planning and cooperation between Federal, state, public, and private agencies for the conservation and rehabilitation of the Nation's fish and wildlife and authorizes DOI to provide assistance. This act requires consultation with USFWS on the possible effects on wildlife if there is construction, modification, or control of bodies of water in excess of 4 hectares (10 acres) in surface area. This act also requires consultation with the head of the state agency that administers wildlife resources in the affected state.

Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 et seq.). The Migratory Bird Treaty Act, as amended, is intended to protect birds that have common migration patterns between the United

States and Canada, Mexico, Japan, and Russia. It regulates the harvest of migratory birds by specifying conditions such as mode of harvest, hunting seasons, and bag limits. The act stipulates that it is unlawful, unless permitted by regulations, to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess...any migratory bird...or any part, nest, or egg of any such bird.” Although no permit for this project is required under the act, DOE is required to consult with USFWS regarding impacts on migratory birds and to avoid or minimize these effects in accordance with USFWS mitigation policy.

Executive Order 11990, *Protection of Wetlands* (May 24, 1977). This order (implemented by DOE in 10 CFR 1022) requires Federal agencies to avoid any short- or long-term adverse impacts on wetlands wherever there is a practicable alternative. Each agency must also provide opportunity for early public review of any plans or proposals for new construction in wetlands. As discussed in Chapter 4 of this *TC & WM EIS*, because no wetlands exist in the proposed locations, no impact on wetlands is expected under any of the alternatives being considered in this EIS.

8.1.7 Cultural and Paleontological Resources

The action alternatives analyzed for this EIS require new facilities to be constructed and borrow materials to be excavated, which would result in ground disturbances. As a result of potential ground-disturbing activities or the location of these new facilities, DOE is required by certain statutes and other requirements to ensure that proposed activities will not adversely impact the cultural resources located in those areas or to limit access to these culturally important areas. Following are summaries of these legal requirements, some of which require consultations with the appropriate agency and American Indian tribes prior to initiation of such actions. Section 8.3 of this chapter discusses DOE activities regarding consultations with the appropriate agency and American Indian tribes. The specific results of these consultations are provided in the cultural resources sections of Chapter 4.

American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996). This act reaffirms American Indian religious freedom under the First Amendment and sets the United States policy to protect and preserve the inherent and constitutional right of American Indians to believe, express, and exercise their traditional religions. The act requires that Federal actions avoid interfering with access to sacred locations and traditional resources that are integral to the practice of religions.

Antiquities Act of 1906, as amended (16 U.S.C. 431–433). This act protects historic and prehistoric ruins, monuments, and antiquities, including paleontological resources, on federally controlled lands from appropriation, excavation, injury, and destruction without permission. On June 9, 2000 (65 FR 37253), the Hanford Reach was designated as a national monument through Presidential Proclamation No. 7319 under this act. The cultural resources section of Chapter 3 of this EIS provides more information on the Hanford Reach.

Archaeological and Historic Preservation Act of 1960, as amended (16 U.S.C. 469–469c-2). The purpose of this act is to provide for the preservation of historical and archaeological data (including relics and specimens) that might otherwise be irreparably lost or destroyed as a result of Federal actions.

Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470aa et seq.). This act requires a permit for any excavation or removal of archaeological resources from Federal or American Indian lands. Excavation must be undertaken for the purpose of furthering archaeological knowledge in the public interest, and resources that are removed are to remain the property of the United States. The law requires that whenever any Federal agency finds that its activities may cause irreparable loss or destruction of significant scientific, prehistoric, or archaeological data, the agency must notify DOI and may request that DOI undertake the recovery, protection, and preservation of such data. Consent must be obtained from the American Indian tribe or the Federal agency having authority over the land on which a resource is located before issuance of a permit; the permit must contain terms and conditions requested by the tribe or Federal agency.

National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.). This act states that sites with significant national historic value are to be placed on the National Register of Historic Places (National Register), which is maintained by the Secretary of the Interior. The implementing regulations for this act are located in “Protection of Historic and Cultural Properties” (36 CFR 800). The major provisions of the act that affect DOE are Sections 106 and 110. Both sections aim to ensure that historic properties are appropriately considered and preserved in planning Federal initiatives and actions. No permits or certifications are required under the act; however, consultation with the State Historic Preservation Officer, Advisory Council on Historic Preservation, American Indian tribes, and the public is required if a Federal undertaking might impact a historic resource. This consultation might result in a memorandum of agreement that includes stipulations to minimize adverse impacts on the historic resource. Coordination with the State Historic Preservation Office is undertaken to ensure that potentially significant sites are properly identified and appropriate mitigation measures are implemented. DOE has submitted documentation to the State Historic Preservation Officer regarding the determination of eligibility for the portion of the *Laliik* traditional cultural property (including Rattlesnake Mountain) that is under DOE’s ownership and management responsibility. In addition, DOE has started consultations under Section 106 with the State Historic Preservation Officer, Advisory Council on Historic Preservation, and American Indian tribes on the possible adverse effects of the use of Borrow Area C for the proposed actions being evaluated in this *TC & WM EIS*. DOE anticipates development of a memorandum of agreement addressing the adverse effects of the proposed actions and alternatives based on the analyses in this *TC & WM EIS*. Copies of the correspondence between DOE and the State Historic Preservation Officer are provided in Appendix C of this EIS.

Programmatic Agreement Among the U.S. Department of Energy Richland Operations Office, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Office for the Maintenance, Deactivation, Alteration, and Demolition of the Built Environment on the Hanford Site, Washington (August 21, 1996). Among other things, this agreement identified five buildings (405, 436, 4621-W, 4703, and 4710) inside the 400 Area Property Protected Area, which includes FFTF, as eligible for inclusion in the National Register under criterion A as contributing properties recommended for individual documentation (mitigation) within the Hanford Site Manhattan Project and Cold War Era Historic District. Sixteen other buildings also are eligible for inclusion in the National Register as contributing properties within the Cold War Era Historic District, with no individual documentation required.

As a result of this agreement and the implementing sitewide treatment plan, the DOE Richland Operations Office took numerous actions. For instance, the DOE Richland Operations Office completed walkthroughs of the 5 historic buildings that were required to have individual documentation (mitigation) to locate and identify any artifacts that may have interpretive or educational value as potential exhibits within local, state, or national museums. Because of the potential of locating significant artifacts in these facilities, walkthroughs were also conducted in each of the 16 contributing properties that did not require individual documentation. These walkthroughs were completed, and artifacts were identified and tagged in 8 of the buildings. Tagged artifacts will be documented in place or retrieved for delivery to the Columbia River Exhibition of History, Science, and Technology Museum as appropriate prior to building demolition. By its own terms, the agreement was in effect until September 30, 2000, and has not been renewed. However, some activities undertaken to comply with the agreement are still ongoing. Unless new actions are proposed that would disturb previously undisturbed areas, these activities completed DOE’s National Historic Preservation Act responsibilities for the 400 Area Property Protected Area, including FFTF.

Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 et seq.). The Native American Graves Protection and Repatriation Act directs the Secretary of the Interior to guide Federal agencies in the repatriation of Federal archaeological collections and collections affiliated culturally to American Indian tribes that are currently held by museums receiving Federal funding. This act establishes provisions for the treatment of inadvertent discoveries of American Indian remains and cultural objects. When discoveries are made during ground-disturbing activities, the following steps are

to occur: (1) activity in the area of the discovery is to cease immediately, (2) reasonable efforts are to be made to protect the items discovered, (3) notice of discovery is to be given to the Federal agency and the appropriate tribes, and (4) a period of 30 days is to be set aside following notification for negotiations regarding the appropriate disposition of the discovered item(s).

Executive Order 11593, *Protection and Enhancement of the Cultural Environment* (May 13, 1971).

This order directs Federal agencies to locate, inventory, and nominate properties under their jurisdiction or control to the National Register, if those properties qualify. This process requires DOE to provide the Advisory Council on Historic Preservation the opportunity to comment on the possible impacts of the proposed activity on any potential eligible or listed resources.

Executive Order 13007, *Indian Sacred Sites* (May 24, 1996). This order directs Federal agencies, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, to (1) accommodate access to and ceremonial use of American Indian sacred sites by their religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies are to maintain the confidentiality of sacred sites.

Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000). This order supplements the Executive Memorandum (dated April 29, 1994) entitled “Government-to-Government Relations with Native American Tribal Governments” and states that each executive department and agency shall consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments. This order also states that each executive department and agency shall assess the impact of Federal Government plans, projects, programs, and activities on tribal trust resources and ensure that tribal government rights and concerns are considered during the development of such plans, projects, programs, and activities.

Executive Order 13195, *Trails for America in the 21st Century* (January 18, 2001). This order states that Federal agencies will, to the extent permitted by law and where practicable—and in cooperation with tribes, states, local governments, and interested citizen groups—protect, connect, promote, and assist trails of all types throughout the United States.

Executive Order 13287, *Preserve America* (March 3, 2003). The goals of the initiative addressed by this order include a greater shared knowledge about the Nation’s past, strengthened regional identities and local pride, increased local participation in preserving cultural and natural heritage assets, and support for the economic vitality of our communities. This order establishes Federal policy to provide leadership in preserving America’s heritage by actively advancing the protection, enhancement, and contemporary use of the historic properties owned by the Federal Government and by promoting intergovernmental cooperation and partnerships for the preservation and use of historic properties.

DOE Order 1230.2, *American Indian Tribal Government Policy* (April 8, 1992), as revised by DOE Notice 144.1. This order establishes responsibilities and transmits the DOE American Indian policy. The policy outlines the principles to be followed by DOE in its interactions with federally recognized American Indian tribes. It is based on Federal policy treaties, Federal law, and DOE’s responsibilities as a Federal agency to ensure that tribal rights and interests are identified and considered during decisionmaking.

Treaties with American Indian Tribes of the Hanford Region. DOE’s relationship with American Indians is based on treaties, statutes, and DOE directives. Representatives of the United States negotiated treaties with leaders of various Columbia Plateau American Indian tribes and bands in June 1855 at Camp Stevens in the Walla Walla Valley. The negotiations resulted in three treaties, one with the 14 tribes and bands of the group that would become the Confederated Tribes and Bands of the Yakama Nation, one with the 3 tribes that would become the Confederated Tribes of the Umatilla Indian Reservation, and one

with the Nez Perce Tribe. The U.S. Senate ratified the treaties in 1859. The negotiated treaties are as follows:

- Treaty with the Walla Walla, Cayuse, etc. (June 9, 1855; 12 Stats. 945)
- Treaty with the Yakama Nation (June 9, 1855; 12 Stats. 951)
- Treaty with the Nez Perce (June 11, 1855; 12 Stats. 957)

The Confederated Tribes and Bands of the Yakama Nation of the Yakama Reservation, the Confederated Tribes of the Umatilla Indian Reservation, and the Nez Perce Tribe of Idaho are federally recognized tribes that are eligible for funding and services from the U.S. Bureau of Indian Affairs by virtue of their status as Indian tribes (68 FR 68180, December 5, 2003).

The terms of the three preceding treaties are similar. Each of the three tribal organizations agreed to cede large blocks of land to the United States. Hanford is within the ceded lands. The treaties reserved to the tribes certain lands for their exclusive use (the three reservations). The treaties also secured to the tribes certain rights and privileges to continue traditional activities outside the reservations. These included (1) the right to fish at usual and accustomed places in common with citizens of the United States and (2) the privileges of hunting, gathering roots and berries, and pasturing horses and cattle on open and unclaimed lands. DOE believes that none of the activities involved in this *TC & WM EIS* would take place on open and unclaimed land.

8.1.8 Worker Safety and Health

DOE emphasizes compliance with requirements to ensure worker safety at DOE facilities, which would include the new and existing facilities being addressed by this *TC & WM EIS*. Through DOE regulations and orders, DOE prescribes that contractors shall meet U.S. Department of Labor Occupational Safety and Health Administration (OSHA) standards applicable to work at Government-owned, contractor-operated facilities and AEA standards to ensure safety of workers from radiation exposure. A summary of worker safety and health requirements is provided below.

Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.). Section 4(b)(1) of the Occupational Safety and Health Act exempts DOE and its contractors from the occupational safety requirements of OSHA. However, 29 U.S.C. 668 requires Federal agencies to establish their own occupational safety and health programs for their places of employment, consistent with OSHA standards. DOE Order 440.1A, *Worker Protection Management for DOE Federal and Contractor Employees*, states that DOE will implement a written worker protection program that (1) provides a place of employment free from recognized hazards that are causing or are likely to cause death or serious physical harm to their employees and (2) integrates all requirements contained in paragraphs 4a to 4l of DOE Order 440.1A; 29 CFR 1960, “Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters”; and other related site-specific worker protection activities.

“Occupational Radiation Protection” (10 CFR 835). This regulation establishes radiation protection standards, limits, and program requirements for protecting occupational workers and visitors from ionizing radiation resulting from the conduct of DOE activities. These requirements are applicable to general employees involved in activities being considered in this *TC & WM EIS* that have the potential to result in the occupational exposure of an individual to radiation or radioactive materials.

“Worker Safety and Health Program” (10 CFR 851). This regulation establishes requirements for a worker safety and health program that prevents or reduces occupational injuries, illnesses, and accidental losses by providing DOE contractors and their workers with safe and healthful workplaces at DOE sites. This regulation also establishes procedures for investigating whether a violation has occurred, determining the nature and extent of any such violation, and imposing an appropriate remedy.

DOE Order 440.1B, Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees (May 17, 2007). This order establishes the framework for an effective worker protection program that will reduce or prevent injuries, illnesses, and accidental losses by providing safe and healthful DOE Federal and contractor workplaces.

Executive Order 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction (January 5, 1990), as amended by Executive Order 13286 (February 28, 2003). This order requires Federal agencies to (1) reduce risks to occupants of buildings owned, leased, or purchased by the Federal Government or buildings constructed with Federal assistance and to persons who would be affected by failures of Federal buildings in earthquakes; (2) improve the capability of existing Federal buildings to function during or after an earthquake; and (3) reduce earthquake losses of public buildings, all in a cost-effective manner. Each Federal agency responsible for the design and construction of a Federal building shall ensure that the building is designed and constructed in accordance with appropriate seismic design and construction standards.

8.1.9 Radiological Safety Oversight and Radiation Protection

DOE has specific regulations and directives that affect radiological safety during construction, operations, deactivation, and closure of new and existing facilities being addressed by this *TC & WM EIS*. The DOE regulations and directives affecting radiological safety are summarized below.

“Nuclear Safety Management” (10 CFR 830). Specific requirements in these regulations apply to DOE contractors, DOE personnel, and other persons conducting activities (including providing items and services) that affect, or may affect, the safety of DOE nuclear facilities. These regulations include quality assurance (10 CFR 830, Subpart A) and safety-basis (10 CFR 830, Subpart B) requirements. The latter require the contractor responsible for a DOE nuclear facility to analyze the facility, work to be performed and associated hazards, and to identify the conditions, safe boundaries, and hazard controls necessary to protect workers, the public, and the environment from adverse consequences. DOE relies on these analyses and hazard controls to operate facilities safely.

DOE Order 420.1B, Facility Safety (December 22, 2005). This order establishes facility safety requirements related to nuclear safety design, criticality safety, fire protection, and the mitigation of hazards related to natural phenomena.

DOE Order 425.1C, Startup and Restart of Nuclear Facilities (March 13, 2003). This order establishes DOE requirements for startup of new nuclear facilities and for the restart of existing nuclear facilities that have been shut down. The requirements specify a readiness review process that must demonstrate that it is safe to start (or restart) the applicable facility. The facility must be started (or restarted) only after documented independent reviews of readiness have been conducted and the approvals specified in the order have been received.

DOE Policy 441.1, DOE Radiological Health and Safety Policy (April 26, 1996). This document states that it is DOE policy to conduct its radiological operations in a manner that ensures the health and safety of all its employees, contractors, and the general public. The policy states that in achieving this objective, DOE will ensure that radiation exposures to its workers and the public and releases of radioactivity to the environment are maintained below regulatory limits, and deliberate efforts are taken to further reduce exposures and releases to as low as is reasonably achievable levels. DOE is committed to implementing a radiological control program of the highest quality that consistently reflects this policy.

DOE Order 5400.5, Radiation Protection of the Public and the Environment (February 8, 1990; Change 2, January 7, 1993). This order establishes standards and requirements for DOE operations for protection of members of the public and the environment against undue risk from radiation. It is DOE policy to implement legally applicable radiation protection standards and to consider and adopt, as appropriate, recommendations by authoritative organizations; for example, the National Council on

Radiation Protection and Measurements and the International Commission on Radiological Protection. It is also DOE policy to adopt and implement standards generally consistent with those of NRC for DOE facilities and activities not subject to NRC licensing authority.

DOE Order 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities* (November 15, 1994; Change 1, July 12, 2001). This order establishes the selection, qualification, and training requirements for DOE contractor personnel involved in the operation, maintenance, and technical support of DOE nuclear reactors and nonreactor nuclear facilities. DOE objectives under this order are to ensure the development and implementation of contractor-administered training programs that provide consistent and effective training for personnel at DOE nuclear facilities. The order contains minimum requirements that must be included in training and qualification programs.

8.1.10 Transportation

The transportation of all radioactive and other hazardous materials associated with any alternative selected for implementation would need to comply with the applicable DOE directives and EPA, U.S. Department of Transportation (DOT), and Ecology regulations. It is DOE policy (DOE Order 460.2A) that all DOE operations shall be conducted in compliance with all applicable international, Federal, state, local, and tribal laws, rules, and regulations governing materials transportation that are consistent with Federal regulations, unless exemptions or alternatives are approved in accordance with DOE Order 460.2A. Following are summaries of those transportation requirements that are relevant to the transportation of radioactive and other hazardous materials, including mixed TRU waste and TRU waste that would be transported to WIPP under each of the action alternatives and remote-handled special components and bulk sodium that would be transported to the Materials and Fuels Complex for processing or storage under some of the action alternatives.

Hazardous Materials Transportation Act of 1975, as amended (49 U.S.C. 5101 et seq.). The Hazardous Materials Transportation Act of 1975, as amended, requires DOT to prescribe uniform national regulations for transportation of hazardous materials (including radioactive materials). Most state and local regulations regarding such transportation that are not substantively the same as the DOT regulations are preempted (i.e., rendered void) (49 U.S.C. 5125). This, in effect, allows state and local governments only to enforce the Federal regulations, not to change or expand upon them.

This program is administered by the Research and Special Programs Administration of DOT, which, when covering the same activities, coordinates its regulations with NRC (under the AEA) and EPA (under RCRA). DOT regulations, which may be found under 49 CFR 171–178 and 49 CFR 383–397, contain requirements for identifying a material as hazardous or radioactive. These regulations interface with the NRC regulations for identifying material, but DOT hazardous material regulations govern the hazard communication (such as marking, labeling, vehicle placarding, and emergency response information) and shipping requirements. Requirements for transport by rail, air, and public highway are included. EPA regulations (40 CFR 262) govern offsite transportation of hazardous waste. States also have established regulations consistent with DOT regulations. The Ecology regulations applicable to transportation of hazardous waste in Washington State are found in WAC 173-303-240 through 270, for packaging and transporting radioactive materials in WAC 246-231, and for transportation of hazardous materials in WAC 446-50. The State of Idaho regulations for transportation of hazardous materials/waste on highways are found in *Idaho Code* 49-2200 and *Idaho Code* 18-3900.

Transportation of waste products and contaminated equipment that is conducted entirely on DOE property (i.e., on site), to which public access is controlled at all times through the use of gates and guards, is subject to applicable DOE directives and transportation safety requirements set forth in 10 CFR 830, Subpart B, but is not directly subject to the DOT requirements. DOE transport of these materials over highways to which the public has access would be subject to applicable DOT, EPA, and Ecology regulations, as well as to applicable DOE directives.

“Packaging and Transportation of Radioactive Material” (10 CFR 71). These NRC regulations include detailed packaging design requirements and package certification testing requirements. Complete documentation of design and safety analysis and the results of the required testing are submitted to NRC to certify the package for use. This certification testing involves the following components: heat, physical drop onto an unyielding surface, water submersion, puncture by dropping the package onto a steel bar, and gas tightness.

DOE Order 460.1B, *Packaging and Transportation Safety* (April 4, 2003). This order sets forth DOE policy and assigns responsibilities for the proper packaging and transportation of DOE offsite shipments and onsite transfers of hazardous materials and for modal transport.

DOE Order 460.2A, *Departmental Materials Transportation and Packaging Management* (December 22, 2004). This order states that DOE operations shall be conducted in compliance with all applicable international, Federal, state, local, and tribal laws, rules, and regulations governing materials transportation that are consistent with Federal regulations, unless exemptions or alternatives are approved in accordance with DOE Order 460.1B. This order also states that it is DOE policy that shipments will comply with the DOT 49 CFR 100–185 requirements, except those that infringe upon maintenance of classified information.

8.1.11 Emergency Planning, Pollution Prevention, and Conservation

There are several statutes and Executive orders that require Federal agencies to have in place programs or plans to respond to an emergency resulting from the release of hazardous substances and also to have in place programs that allow for conservation and pollution prevention. DOE is required to implement these programs at its facilities and would be required to ensure that these plans and programs are in place to address activities being considered under any of the alternatives. Following are summaries of these statutes and Executive orders related to emergency planning, pollution prevention, and conservation requirements.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.) (also known as Superfund). CERCLA provides a statutory framework for the remediation of waste sites, including Federal facilities, containing hazardous substances and, as amended by the Superfund Amendments and Reauthorization Act, an emergency response program in the event a release (or threat of a release) of a hazardous substance to the environment occurs. Releases of hazardous substances exceeding reportable quantities must be reported on a timely basis to the National Response Center. Using a hazard-ranking system, Federal and private contaminated sites are ranked and may be included on the National Priorities List. CERCLA requires Federal facilities with contaminated sites to undertake investigations, remediation, and natural resource restoration, as necessary.

Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C. 11001 et seq.). Federal facilities are required under Subtitle A of the Emergency Planning and Community-Right-to-Know Act to provide information to EPA and the state and local emergency response offices regarding the inventories of chemicals used or stored at a site and releases from that site. The goal of providing this information is to ensure that emergency plans are sufficient to respond to unplanned releases of hazardous substances. The required information includes inventories of specific chemicals used or stored and descriptions of releases that occur from sites.

Pollution Prevention Act of 1990 (42 U.S.C. 13101 et seq.). The Pollution Prevention Act establishes a national policy for waste management and pollution control. Source reduction is given first preference, followed by environmentally safe recycling, with disposal or releases to the environment as a last resort.

Executive Order 12088, *Federal Compliance with Pollution Control Standards* (October 13, 1978), as amended by Executive Order 12580, *Superfund Implementation* (January 23, 1987). This order directs Federal agencies to comply with applicable administrative and procedural pollution control

standards established by, but not limited to, the Clean Air Act, the Noise Control Act, the Clean Water Act, the Safe Drinking Water Act, the Toxic Substances Control Act, and RCRA.

Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (January 24, 2007). This order sets goals for Federal agencies to conduct their environmental, transportation, and energy-related activities under the law in support of their respective missions in an environmentally, economically, and fiscally sound, integrated, continuously improving, efficient, and sustainable manner.

8.1.12 Environmental Justice and Protection of Children

There are two Executive orders that require Federal agencies to identify and address environmental risks to certain populations when planning a major Federal action such as those activities being considered in this *TC & WM EIS*. Following are summaries of these two orders.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994). This order requires each Federal agency to identify and address disproportionately high and adverse human health and environmental effects of its programs, policies, and activities on minority and low-income populations.

The CEQ, which oversees the Federal Government's compliance with Executive Order 12898 and NEPA, has developed guidelines to assist Federal agencies in incorporating the goals of Executive Order 12898 in the NEPA process. This guidance, published in 1997, was intended to "...assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed." As part of this process, DOE has performed an analysis to determine whether implementing any of the proposed alternatives would result in disproportionately high or adverse impacts on minority or low-income populations. The results of this analysis are discussed in the environmental justice sections of Chapter 4 for each of the alternatives under consideration.

Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (April 21, 1997), as amended by Executive Order 13229 (October 9, 2001). This order requires each Federal agency to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and to ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

8.2 PERMITS

Information on the status of existing environmental permits at Hanford is discussed in the *Annual Hanford Site Environmental Permitting Status Report* (DOE 2004b). Included is information on current and anticipated environmental permitting required by RCRA; the Toxic Substances Control Act, Clean Air Act, and Clean Water Act; the State Waste Discharge, Hydraulic Permit, and Underground Injection Control Programs; the Onsite Sewage System Program; and the Petroleum Underground Storage Tank Program.

Hanford is considered a single facility for purposes of RCRA and the Washington State Hazardous Waste Management Act. The site has been issued EPA/state identification No. WA7890008967. The Hanford RCRA permit governs all final-status TSD activities at Hanford (Duncan 2007). The Hanford RCRA permit was originally issued in two portions, one issued by EPA Region 10 and the other by Ecology. The EPA portion of the Hanford RCRA permit covered the Hazardous and Solid Waste Amendments. The Ecology portion of the permit covered compliance with Ecology's dangerous waste regulations, as well as standard conditions, general facility conditions, and specific conditions for the individual TSD units and TSD units undergoing corrective action or closure (Duncan 2007). The 10-year period for the permit, as specified by the regulations, ended on September 27, 2004, and DOE continues to operate

under the old permit until a revised permit is issued by Ecology. Ecology is now fully authorized to implement the dangerous waste program in lieu of the Federal RCRA program; therefore, there is no need or authority for EPA to separately issue a hazardous solid waste amendment component of the Hanford permit (Bartus 2008).

The DST farms continue to operate under interim status requirements. A Part B permit application for the DSTs was submitted to Ecology in 2005. The TPA lays out the process and authority to operate non-RCRA-compliant SSTs pending closure and identifies the process and procedures for SST system closure. A final RCRA Part B permit is being obtained for the WTP on an incremental basis as the design matures. A Part B permit application for the 200-East Area Integrated Disposal Facility was submitted to Ecology in 2005. Any new or modified TSD units would require a modification of the Hanford RCRA permit. An RCRA Part B permit application for the 200-East Area Integrated Disposal Facility was submitted to Ecology in 2005.

DOE has submitted two risk-based disposal applications to EPA Region 10 for their approval. The first application, titled "Transmittal of Toxic Substance Control Act (TSCA) Risk-Based Disposal Application for the Double Shell Tank (DST) System for 2001," was submitted on January 15, 2002. The second application, titled "Application for Risk-Based Disposal Approval for PCBs Hanford 200 Area Liquid Waste Processing Facilities," was submitted on February 28, 2002.

The 400 Area waste management unit is currently permitted under the Hanford RCRA permit. The 400 Area waste management unit stores mixed waste (i.e., sodium residuals-contaminated waste) generated from FFTF deactivation activities in the FFTF Fuel Storage Facility and the 400 Area Interim Storage Area. Once this waste is treated, removed, and disposed of, appropriate closure of the 400 Area waste management unit facilities would be done under applicable regulations.

IDEQ administers the requirements of RCRA through the Idaho Hazardous Waste Management Act. The Idaho hazardous waste regulations are found in IDAPA 58.01.05 (ANL-W and Fluor Hanford 2002).

The Sodium Processing Facility (SPF) at Idaho obtained an Idaho Hazardous Waste Management Act/RCRA hazardous waste treatment and storage permit in January 1997. The SPF is permitted in accordance with IDAPA 58.01.05.008/40 CFR 264 for tank and container treatment and storage. This hazardous waste operating permit allows for the treatment and storage of sodium, sodium potassium, and caustic (sodium and potassium hydroxide). No SPF Idaho Hazardous Waste Management Act/RCRA permit modifications are anticipated that would be required for treatment and storage of FFTF sodium in the SPF whether the sodium is classified as product or hazardous waste (ANL-W and Fluor Hanford 2002).

Hanford Site Air Operating Permit No. 00-05-006, Renewal, covers operations at Hanford having a potential to emit airborne emissions. This permit became effective on January 1, 2007, and expires January 1, 2012. The permit is intended to provide a compilation of applicable Clean Air Act requirements for both radioactive and nonradioactive emissions at Hanford. It is implemented through Federal and state programs (Poston et al. 2007:D.2).

DOE holds a license (No. FF-01), issued by the Washington State Department of Health, covering airborne radioactive effluents from Hanford operations. The license is incorporated as Attachment 2 in the Hanford Site Air Operating Permit (Poston et al. 2007:D.2).

The State of Idaho issued to INL a Tier I operating permit under Title V of the Clean Air Act, with an effective date of June 28, 2005 (DOE 2006b:2.1). A Notice of Construction was prepared according to requirements of WAC 246-247, "Radiation Protection – Air Emissions," and 40 CFR 61 Subpart H, for the Sodium Storage Facility and submitted to EPA and the Washington State Department of Health. The final Notice of Construction was approved on February 24, 1995. A Notice of Construction would be

required for the Sodium Reaction Facility, if it is constructed at Hanford (ANL-W and Fluor Hanford 2002).

A NESHAPs application (40 CFR 61) for the SPF was submitted to EPA Region 10 on December 19, 1995; approval for construction was granted in February 1996. EPA Region 10 granted approval for construction on February 5, 1996 (ANL-W and Fluor Hanford 2002). DOE-Chicago received an approved permit from IDEQ to construct the SPF on September 29, 1995, with subsequent amendments and approval on September 26, 2000. IDEQ found the SPF treatment and storage operations met the provisions of IDAPA 58.01.01 “Rules for the Control of Air Pollution in Idaho” (ANL-W and Fluor Hanford 2002).

Assuming that the radionuclide concentrations for Hanford sodium would not exceed the permitted radionuclide emissions from the SPF, no modification for the NESHAPs application would be necessary. Additionally, no modification is expected for the SPF permit to construct, as no other air contaminants, other than those currently specified in the permit to construct, are identified in FFTF sodium.

There is one NPDES permit (No. WA-002591-7) issued by EPA for Hanford. The permit covers three active outfalls: outfall 001 for the 300 Area Treated Effluent Disposal Facility and outfalls 003 and 004 in the 100-K Area. Fluor Hanford, Inc. is the holder of this permit (Poston et al. 2007:5.11).

EPA’s NPDES Storm Water Multi-Sector General Permit No. WAR05A57F establishes the terms and conditions under which stormwater discharges associated with industrial activity are authorized. The permit was issued in 2000 and expired on October 30, 2005. A new permit to replace it has not been issued. Facilities that obtained coverage under the 2000 Multi-Sector General Permit prior to its expiration are automatically granted an administrative continuance of permit coverage. Fluor Hanford, Inc. is the holder of this permit (Poston et al. 2007:5.11).

Hanford has five state wastewater discharge permits for the discharge or disposal of wastewater to groundwater (Permit Nos. ST 4500, ST 4501, ST 4502, ST 4507, and ST 4511), issued by Ecology (Poston et al. 2007:5.11).

DOE has asserted a federally reserved water withdrawal right with respect to its Hanford operations. Current Hanford activities use water withdrawn under DOE’s federally reserved water rights (Duncan 2007).

The INL site complies with four Clean Water Act permits through implementation of procedures, policies, and best management practices. These four permits are: Section 404 Permit for dredge and fill activities; discharges from Idaho Falls facilities to the City of Idaho Falls publicly owned treatment works; NPDES General Permit for Storm Water Discharges from Industrial Activities; and NPDES General Permit for Storm Water Discharges from Construction Activities (DOE 2006b:2.12).

DOE would obtain the required permits or permit modifications for any new or modified facility. In particular, DOE would need to obtain permits and approvals for (1) construction and operation of new treatment facilities (i.e., supplemental treatment facilities); (2) modifications to currently planned or existing treatment facilities (e.g., the WTP, 200 Area Effluent Treatment Facility, Liquid Effluent Retention Facility, T Plant complex, Waste Receiving and Processing Facility); (3) construction and operation of new or modified waste storage facilities (e.g., canister storage modules, WTP melter pads, the Central Waste Complex); (4) construction, operation, and closure of disposal facilities (i.e., one or two Integrated Disposal Facilities and the River Protection Project Disposal Facility); and (5) closure of storage facilities (i.e., the SST system, including ancillary equipment). Table 8–2 provides a list of future permits, permit modifications, or approvals that may be required at Hanford as a result of activities discussed under the action alternatives.

Table 8–2. Potential Permits and Approvals Needed for TC & WM EIS Activities

Activity	Regulatory Action	Requirement	Regulatory Agency
Air emissions (nonradioactive)	Notice of Construction (approval) and sitewide air operating permit (permit modification)	40 CFR 61 WAC 173-400 WAC 173-460 IDAPA 58.01.01	Ecology and EPA; Idaho Department of Environmental Quality
Air emissions (radioactive)	Notice of Construction (approval) and sitewide air operating permit (permit modification)	40 CFR 61 WAC 173-400 WAC 246-247	Washington State Department of Health, Ecology, and EPA; Idaho Department of Environmental Quality
Dangerous (including mixed) waste generation, treatment, storage and disposal	Dangerous waste and RCRA permit (permit modification)	40 CFR 260–280 WAC 173-303 IDAPA 58.01.05	Ecology; Idaho Department of Environmental Quality
Dangerous (including mixed) waste facility closure	Dangerous waste permit, RCRA permit (permit modification) and closure plan/postclosure plan (approvals)	40 CFR 260–280 WAC 173-303 IDAPA 58.01.05	Ecology; Idaho Department of Environmental Quality
Radiological	Disposal authorization statement, waste incidental to reprocessing determination, and authorization to proceed with closure activities statement (approvals)	DOE Manual 435.1-1	DOE
Water effluents	NPDES (permit modification) and stormwater discharge (permit modification)	40 CFR 122	EPA

Key: CFR=Code of Federal Regulations; DOE=U.S. Department of Energy; Ecology=Washington State Department of Ecology; EPA=U.S. Environmental Protection Agency; IDAPA=Idaho Administrative Procedures Act; NPDES=National Pollutant Discharge Elimination System; RCRA=Resource Conservation and Recovery Act; TC & WM EIS=Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington; WAC=Washington Administrative Code.

8.3 CONSULTATIONS

Certain laws, such as the Endangered Species Act, U.S. Fish and Wildlife Coordination Act, and National Historic Preservation Act, require consultation and coordination by DOE with other governmental entities, including other Federal agencies, state and local agencies, and federally recognized American Indian governments. In addition, the DOE *American Indian Tribal Government Policy* (DOE Order 1230.2) requires DOE to consult with any American Indian or Alaska Native tribal government with regard to any property to which the tribe attaches religious or cultural importance that might be affected by a DOE action. Most of these consultations are related to biotic resources, cultural resources, and American Indian rights.

The biotic resource consultations generally pertain to the potential for activities to disturb sensitive species or habitats. Cultural resource consultations relate to the potential for disruption of important cultural resources and archaeological sites. American Indian consultations are concerned with the potential for impacts on any rights and interests, including disturbance of ancestral American Indian sites, traditional practices of American Indians, and natural resources of importance to American Indians.

DOE has performed consultations with the appropriate State Historic Preservation Officers, as required by NEPA and Section 106 of the National Historic Preservation Act; USFWS, as required by the Endangered Species Act of 1973, the Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act; the

National Oceanic and Atmospheric Administration, as required by the Endangered Species Act; and the appropriate state regulators, as required by Washington State laws or regulations. These consultations began in 2002 during the initial preparation of the “Tank Closure EIS” and continued with the newly scoped *TC & WMEIS*. A list of those organizations consulted for the “Tank Closure EIS” consultation process is provided in Table 8–3 and for this *TC & WMEIS* in Table 8–4. The specific results of the consultation process are presented in Chapter 4 of this EIS. Copies of the correspondence to these agencies and responses received are provided in Appendix C of this EIS. DOE also initiated consultations with the appropriate American Indian tribal governments for the “Tank Closure EIS,” which continued with the newly scoped *TC & WMEIS*, as required by the Executive Memorandum (dated September 23, 2004) entitled “Government-to-Government Relationship with Tribal Governments” (White House 2004) and DOE Order 144.1, *American Indian Tribal Government Interaction and Policy*.

Table 8–3. Organizations Contacted During the Consultation Process for the “Tank Closure EIS”

Subject	Addressee (Date of Letter)
Ecological resources	Mr. Mark Miller U.S. Fish and Wildlife Service (June 16, 2003)
	Mr. Dennis Carlson National Oceanic and Atmospheric Administration (June 16, 2003)
	Mr. Jeff Tayer Washington State Department of Fish and Wildlife (June 16, 2003)
	Ms. Sandy Swope Moody Washington State Department of Natural Resources (June 16, 2003)
Cultural resources	Dr. Allyson Brooks Washington State Department of Archaeology and Historic Preservation (August 12, 2003, and September 3, 2003)

Key: “Tank Closure EIS”=“Environmental Impact Statement for Retrieval, Treatment, and Disposal of Tank Waste and Closure of Single-Shell Tanks at the Hanford Site, Richland, Washington.”

In addition to the formal consultation process, DOE initiated many staff-to-staff discussions during the development of this EIS. A chronology of the consultation process and communications with the American Indian tribal governments for the “Tank Closure EIS” and for this *TC & WMEIS* is provided in Appendix C.

In addition to tribal consultation and communication, DOE used other forums to reach out during the development of this *TC & WMEIS*. A summary of the interactions with the Hanford Advisory Board and Oregon Hanford Cleanup Board are provided in Appendix C.

Table 8–4. Organizations Contacted During the Consultation Process for This TC & WM EIS

Subject	Addressee (Date of Letter)
Ecological resources	Mr. Mark Miller U.S. Fish and Wildlife Service (June 12, 2008)
	Mr. Dennis Carlson National Oceanic and Atmospheric Administration (June 12, 2008)
	Mr. Jeff Tayer Washington State Department of Fish and Wildlife (June 12, 2008)
	Ms. Sandy Swope Moody Washington State Department of Natural Resources (June 12, 2008)
Cultural resources	Dr. Allyson Brooks Washington State Department of Archaeology and Historic Preservation (April 6, 2007)
	Mr. John M. Fowler Advisory Council on Historic Preservation (April 10, 2007)
	Dr. Allyson Brooks Washington State Department of Archaeology and Historic Preservation (July 30, 2007)
	Mr. John M. Fowler Advisory Council on Historic Preservation (September 5, 2007)
	Dr. Allyson Brooks Washington State Department of Archaeology and Historic Preservation (September 25, 2007)
	Mr. John M. Fowler Advisory Council on Historic Preservation (November 2, 2007)

Key: TC & WM EIS= Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington.

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