

Chapter 5

Environmental Regulations, Permits, and Consultations

5.1 LAWS, REGULATIONS, EXECUTIVE ORDERS, AND DOE ORDERS

The major Federal laws, regulations, Executive orders, and other compliance actions that potentially apply to surplus plutonium disposition activities, depending on the various alternatives, are identified in Table 5–1.¹ There are a number of Federal environmental statutes dealing with environmental protection, compliance, or consultation that affect compliance at every U.S. Department of Energy (DOE) location. In addition, certain environmental requirements have been delegated to State authorities for enforcement and implementation. It is DOE policy to conduct its operations in an environmentally safe manner in compliance with all applicable statutes, regulations, and standards. Although this chapter does not address pending legislation or future regulations, DOE recognizes that the regulatory environment is in transition, and subject to many changes, and that the construction, operation, and decommissioning of any surplus plutonium disposition facility must be conducted in compliance with all applicable regulations and standards.

The Atomic Energy Act of 1954 authorizes DOE to establish standards to protect health or minimize dangers to life or property for activities under DOE's jurisdiction. Through a series of DOE orders and regulations, an extensive system of standards and requirements has been established to ensure safe operation of facilities. DOE regulations are generally found in Title 10 of the Code of Federal Regulations (CFR). For purposes of this *Surplus Plutonium Disposition Environmental Impact Statement* (SPD EIS), relevant regulations include 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*; 10 CFR 830, *Nuclear Safety Management*; 10 CFR 834, *Radiation Protection of the Public and the Environment (Draft)*; 10 CFR 835, *Occupational Radiation Protection*; 10 CFR 1021, *National Environmental Policy Act Implementing Procedures*; and 10 CFR 1022, *Compliance with Floodplains/Wetlands Environmental Review Requirements*. The DOE orders have been revised and reorganized to reduce duplication and eliminate obsolete provisions (though some older orders remain in effect during the transition). The new organization is by Series and is generally intended to include all DOE policies, orders, manuals, requirements documents, notices, and guides. Relevant DOE orders include those in the new Series 400, which deals with Work Process. Within this Series, DOE Order 420.1 addresses *Facility Safety*; 425.1A, *Startup and Restart of Nuclear Facilities*; 452.1A, *Nuclear Explosive and Weapons Surety Programs*; 452.2A, *Safety of Nuclear Explosives Operations*; 452.4, *Security and Control of Nuclear Explosives and Nuclear Weapons*; 460.1A, *Packaging and Transportation Safety*; 470.1, *Safeguards and Security Program*; and Manual 474.1, *Nuclear Materials Management and Safeguards System Reporting and Data Submission*. In addition, DOE (older number) Series 5400 addresses environmental, safety, and health programs for DOE operations.

5.2 REGULATORY ACTIVITIES

It is likely that new or modified permits would be needed before surplus plutonium disposition facilities could be constructed or operated. Permits regulate many aspects of facility construction and operations, including the quality of construction, treatment and storage of hazardous waste, and discharges of effluents to the environment. These permits would be obtained as required from appropriate Federal, State, and local agencies. Permits for constructing or operating surplus plutonium disposition facilities would not be obtained or modified before a Record of Decision was issued on this SPD EIS.

¹ It should be noted that not all of these statutes, regulations, and orders apply to all aspects of the surplus plutonium disposition program and that the descriptions provided represent only a broad summary of each listed requirement.

5.2.1 Pit Conversion and Immobilization Facilities

The pit conversion and immobilization facilities would be designed, constructed, and operated in accordance with DOE regulations and requirements, although the facilities may, as a matter of policy, take into account any appropriate NRC standards. These facilities are categorized as nonreactor nuclear facilities. The major DOE design criteria may be found in DOE Order 6430.1A, *General Design Criteria*, and its successor Orders 420.1A, *Facility Safety*, and 430.1, *Life Cycle Asset Management*, which delineate applicable regulatory and industrial codes and standards for both conventional facilities designed to industrial standards and “special facilities” (defined as nonreactor nuclear facilities and explosive facilities). The design of the facilities would be accomplished in stages that allow for adequate review and assurance that all required standards are met. Prior to operation, the facilities would undergo cold and hot startup testing and an operational readiness review in accordance with the requirements of DOE Order 425.1. Startup of these facilities would require the approval of the Secretary of Energy.

While there are a number of areas or buildings that would be designed to conventional codes and standards, plutonium processing and storage areas, and other areas where quantities of plutonium or other special nuclear materials in excess of a minimum quantity could be present, would be required to meet the more stringent requirements for facility integrity and safeguards and security. Other applicable regulations and standards would be related to worker health and safety and environmental protection, such as DOE’s radiation protection standards found in 10 CFR 835. In addition, Federal or State regulations implementing the Clean Water Act (CWA), Clean Air Act (CAA), and Resource Conservation and Recovery Act (RCRA) are applicable. These regulations are implemented through permits, and DOE would require evaluations to determine whether the pit conversion or immobilization facility emissions and activities would necessitate modification of any of these permits. Analyses in Chapter 4 have shown that there would be minimal impact from construction and operation of these facilities.

5.2.2 MOX Facility

The mixed oxide (MOX) fuel fabrication facility would be licensed to operate by the U.S. Nuclear Regulatory Commission (NRC) under its regulations in 10 CFR 70, *Domestic Licensing of Special Nuclear Material*. Because the facility would be located at a DOE site, however, certain DOE requirements affecting site interfaces and infrastructure would also be applicable. In addition, as would be the case regardless of where the facility was built, certain Federal or State regulations implementing the CWA, the CAA, and RCRA would be applicable. These regulations are implemented through permits. Evaluation would be required to determine whether MOX facility emissions and activities necessitated modification of any of these permits. Analyses in Chapter 4 have shown that there would be minimal impacts from construction and operation of the MOX facility.

MOX facility design and operating parameters would be imposed by requirements of 10 CFR 70. Facility robustness, and worker health and safety, for example, are all specified by 10 CFR 70. This regulation incorporates and refers the licensee to provisions of other NRC regulations such as those found in 10 CFR 20, *Protection Against Radiation*. Safety and environmental analyses would be required to support the license application for the MOX facility.

Integral to the National Environmental Policy Act (NEPA) process is consideration of how the proposed action might affect biotic, cultural, and Native American resources and of the need for mitigation of any potential impacts. Required consultations with agencies and recognized Native American groups have been initiated as part of the NEPA process for this SPD EIS.

5.2.3 Reactors

Nuclear power reactors undergo a lengthy licensing process under 10 CFR 50, *Domestic Licensing of Production and Utilization Facilities*, beginning before facility construction. This process includes preparation of safety analysis and environmental reports. The safety analysis report remains a living document that serves as the licensing basis for the plant and is updated throughout the life of the plant. Public hearings before a licensing board are conducted before a license is issued. Once issued, operating licenses may be amended only with proper evaluation, review, and approval as specified in 10 CFR 50.90. This prescriptive process requires demonstration that a proposed change does not involve an unreviewed environmental or safety question and provides for public notice and opportunity to comment before issuance of the license amendment. Minor license amendments can be processed fairly expeditiously, but more involved amendments can require multiple submittals before NRC is assured that the proposed action will not reduce the margin of safety of the plant. All submittals, except the portions that contain proprietary information, are available to the public.

The six reactors proposed to use MOX fuel have been operating for many years. Revisions to each of their operating licenses would be required prior to MOX fuel being brought to the reactor sites and loaded into the reactors. The regulatory process for requesting reactor license amendments to use MOX fuel would be the same as that for any 10 CFR 50 operating license amendment request. This process is initiated by the reactor licensee submitting an operating license amendment request in accordance with 10 CFR 50.90. The license amendment request would need to include a discussion of all potential impacts and changes in reactor operation that could be important to safety or the environment.

The need for modifications to site permits would be evaluated by the individual plants. The contractor team of Duke Engineering & Services, COGEMA Inc., and Stone & Webster has indicated that there would be minimal changes in effluents, emissions, and wastes (radiological or nonradiological).

5.3 CONSULTATIONS

Certain statutes and regulations require DOE to consider consultations with Federal, State, and local agencies and federally recognized Native American groups regarding the potential for alternatives for surplus plutonium disposition to disturb sensitive resources. The needed consultations must occur on a timely basis and are generally required before any land disturbance can begin. Most of these consultations are related to biotic, cultural, and Native American resources. 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. Finally, Native American consultations are concerned with the potential for disturbance of ancestral Native American sites and the traditional practices of Native Americans.

DOE has initiated consultations with Federal and State agencies and federally recognized Native American groups regarding the potential for alternatives for surplus plutonium disposition to disturb sensitive resources. Table 5-2 presents a summary of the consultations initiated by DOE. Appendix O contains copies of the consultation letters sent by DOE to agencies and Native American groups, and any written responses provided by those agencies or groups. Attachments to responses are not included in Appendix O but are, nevertheless, part of the public record. All agencies and Native American groups were also sent a copy of the SPD Draft EIS. Information from the agencies and Native American group responses has been incorporated into Chapters 3 and 4 as appropriate.

5.3.1 Native American Consultations

Upon publication of the SPD Draft EIS, DOE initiated the government-to-government consultation process with federally recognized Native American groups for the proposed action and alternatives discussed herein. The consultations were conducted consistent with the direction outlined in DOE Order 1230.2, *American Indian Tribal Government Policy*. A copy of the SPD Draft EIS was presented to each federally recognized tribe that has acknowledged potential concern for resources at the Hanford Site, Idaho National Engineering and Environmental Laboratory (INEEL), Pantex Plant, and Savannah River Site (SRS) during prior consultations initiated for compliance with statutes such as the National Historic Preservation Act (16 USC 470 et seq.) and the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001).

The consultation process was initiated by DOE through a formal letter identifying the potential actions at the DOE site accompanied by a copy of the SPD Draft EIS. The letter requested a response from each Native American group regarding concerns, including any concerns under the American Indian Religious Freedom Act (42 USC 1996) and NAGPRA. Among the areas of specific concern that may be identified by Native American groups are religious and sacred places and resources, Native American human remains, associated funerary objects, unassociated funerary objects, sacred objects, and cultural patrimony objects. [Text deleted.] The intent of these consultations was to identify all potential Native American concerns associated with each action discussed in the SPD Draft EIS and to consider the results of the consultation processes in this SPD Final EIS.

Consultations were requested with the Native American groups listed in Table 5–2, which included four groups related to Hanford, one to INEEL, four to Pantex and six to SRS. Consultations with the Native American groups indicate that there are no significant concerns related to the proposed action and alternatives evaluated in this SPD EIS.

In the event of inadvertent discovery of potential important materials such as human remains, associated funerary objects, unassociated funerary objects, sacred objects, and cultural patrimony during construction and operation, another consultation process will be initiated. Each DOE site considered in this SPD EIS has plans and procedures that address inadvertent discoveries of cultural material. In each case, the ground-disturbing activities would be immediately suspended upon recognition of human remains or potential cultural materials. DOE would be notified and qualified cultural resource specialists would evaluate the materials to determine potential Native American origin. If the remains or materials are determined to be of potential Native American origin and within the criteria of applicable statutes such as NAGPRA, DOE would immediately initiate consultation with Native American groups with interest in the locations, as determined during the SPD Draft EIS consultation process described above. Based on the results of the consultations, DOE would take appropriate action prior to resuming ground-disturbing activities.

5.3.2 Archaeological and Historical Resources Consultations

Each DOE site evaluated in this SPD EIS has cultural (archaeological and historical) resource management plans that prescribe consultation processes for activities that have the potential to adversely affect sites and properties eligible for nomination, or listed, on the National Register of Historic Places. The management plans have been developed consistent with archaeological and historical resource laws (see Table 5–1) as implemented under 36 CFR 800, *Protection of Historic and Cultural Properties*.

Upon publication of the SPD Draft EIS, DOE initiated consultation with the State Historic Preservation Officers (SHPOs) of Idaho, Washington, and South Carolina as appropriate under each site’s programmatic agreement and management plan (see Table 5–2). Consultation with the SHPO in Texas was not required because extensive surveys of Pantex have shown that significant cultural resources are not likely to be present, and both the Texas SHPO and the Advisory Council on Historic Preservation have agreed that additional archaeological surveys are

not required. The intent of each consultation was to determine potential eligibility for nomination to the National Register of Historic Places of archaeological and historic resources that may be associated with the proposed actions and alternatives. As discussed in Section 5.3.1, DOE also initiated consultation with Native Americans. [Text deleted.] The consultation process was initiated by DOE through a formal letter to the appropriate SHPO identifying the potential actions at the DOE site accompanied by a copy of the SPD Draft EIS. In all cases, the consultation process was conducted in conformance with 36 CFR 800 requirements and programmatic agreements for the management of archaeological and historic resources and properties.

The letters sent by DOE solicited specific concerns the SHPOs may have about the DOE proposal. Consultations with the SHPOs indicate that only the South Carolina SHPO had significant concerns related to the proposed action and alternatives evaluated in this SPD EIS. The South Carolina SHPO response noted that if Alternative 3 (DOE's preferred alternative) is selected, further consultations would be required. In response to the SHPO's concerns about cultural resources present near the F-Area, additional surveys were performed. Investigations identified archaeological sites near this portion of F-Area that have been recommended to the South Carolina SHPO as eligible for nomination to the National Register. DOE currently plans to mitigate impact by avoiding these sites.

In the event that potential archaeological and historic materials are discovered during construction and operation, another consultation process will be initiated. Each DOE site considered in this SPD EIS has plans and procedures that address inadvertent discoveries of cultural material. In each case, the ground-disturbing activities would be immediately suspended upon recognition of human remains or potential archaeological and historical materials. DOE would be notified and qualified cultural resource specialists would evaluate the materials to identify and determine their potential archaeological and historical value under 36 CFR 800. If the materials are determined to be potentially eligible for nomination to the National Register of Historic places, DOE would immediately initiate an expedited formal consultation process with the appropriate SHPO, as appropriate under the programmatic agreement. Based on the results of the consultations, DOE would take appropriate action to ensure mitigation of any adverse effects to resources determined eligible for the National Register of Historic Places.

5.3.3 Endangered Species Act Consultation

Upon publication of the SPD Draft EIS, DOE conducted consultations with the appropriate regional and field offices of the U.S. Department of the Interior, Fish and Wildlife Service (USFWS) and the equivalent State agencies. The consultations were conducted to solicit input on the potential for impacts on ecological resources, especially Federal threatened, endangered, and other species of concern or their critical habitat and/or State-protected species. These consultations were conducted in accordance with Sections 7(a)-(d) of the Endangered Species Act of 1973 (16 USC Sections 1536(a)-(d)) and its implementing regulations under 50 CFR 402, *Interagency Cooperation-Endangered Species Act of 1973, As Amended*, and relevant State statutes and regulations (see Table 5-1).

The consultation process was initiated by DOE through formal letters that identified the potential actions at each DOE site and was accompanied by a copy of the SPD Draft EIS. Each letter also summarized the preliminary analysis of the potential impacts on ecological resources at each site, including any known Federal- or State-listed species with the potential for occurrence. As shown in Table 5-2, letters were sent to each respective USFWS regional or field office with primary jurisdiction over the four DOE surplus plutonium disposition candidate sites. The letters requested that the USFWS offices provide any available information on Federal threatened and endangered animal and plant species (listed or proposed) and their habitats in the vicinity of the specific project areas. Each office was also asked to identify any other issues or concerns that should be considered in this SPD EIS. A similar written request for comment was also sent to each equivalent State agency including: the Washington Department of Fish and Wildlife, Department of Ecology; Idaho Department of Fish and Game,

| Conservation Data Center; Texas Parks and Wildlife Department; and the South Carolina Department of Natural Resources, Lower Coastal Wildlife Diversity.

| Of the four consultations initiated with the USFWS, three of the offices provided written responses, with the resulting information considered in the preparation of this SPD Final EIS. Additional species information was provided by the USFWS Moses Lake, Washington, and Charleston, South Carolina offices. The USFWS Charleston office also indicated in its response that the proposed facilities at SRS do not appear to present a substantial risk to federally protected ecological resources and that DOE has satisfied its obligations under Section 7 of the *Endangered Species Act*. The USFWS Boise, Idaho, office indicated that the information provided in the SPD Draft EIS was accurate. In the absence of receipt of a written response, telephone communication was initiated with the USFWS office in Arlington, Texas, with officials indicating that the office had no additional information to provide or comment on the SPD Draft EIS.

| Three of the four State agencies contacted also provided written responses, with one agency (i.e., South Carolina Department of Natural Resources) verbally responding that it had no additional information to provide or other comment on the SPD Draft EIS. Additional information was provided by the Washington State Department of Fish and Wildlife and the Idaho Department of Fish and Game, which was considered in development of this SPD Final EIS.

| Prior to any project implementation activities at any site, additional consultations with Federal and State agencies would be conducted, as appropriate. Additionally, site-specific surveys and assessments would be conducted, as necessary, to determine the potential for impacts to protected or other sensitive animal and plant species and sensitive habitats and to identify any required mitigation measures.

Table 5–1. Federal Environmental Statutes, Regulations, and Executive Orders

Statute, Regulation, Executive Order	Citation	Potential Requirements
Air Quality and Noise		
Clean Air Act of 1970 (CAA)	42 USC 7401 et seq.	Requires sources to meet standards and obtain permits to satisfy: National Ambient Air Quality Standards (NAAQS), State implementation plans, Standards of Performance for New Stationary Sources, National Emission Standards for Hazardous Air Pollutants, and Prevention of Significant Deterioration (PSD). Public radiological dose limits for DOE facilities are outlined in 40 CFR 61.92, under the authority of this act.
National Ambient Air Quality Standards	42 USC 7409; 40 CFR 50	Establishes primary and secondary ambient air quality standards governing carbon monoxide, lead, nitrogen dioxide, ozone, sodium dioxide, and particulate matter with an aerodynamic diameter less than or equal to 10 microns.
Standards of Performance for New Stationary Sources	42 USC 7411; 40 CFR 60	Establishes control/emission standards and recordkeeping requirements for new or modified sources specifically addressed by a standard.
National Emission Standards for Hazardous Air Pollutants	42 USC 7412; 40 CFR 61, 63	Establishes emission levels for carcinogenic or mutagenic pollutants or operation requirements; may require a preconstruction approval, depending on the process being considered and the level of emissions that will result from the new or modified source.
Prevention of Significant Deterioration	42 USC 7470 et seq.; 40 CFR 51.166	Establishes requirements for the State implementation plans for PSD programs. Applies to areas that are in compliance with NAAQS. Requires comprehensive preconstruction review and the application of Best Available Control Technology to major stationary sources (emissions of 100 tons per year [tons/yr]) and major modifications; requires a preconstruction review of air quality impacts and the issuance of a construction permit from the responsible State agency setting forth emission limitations to protect the PSD increment.
Determining conformity of Federal actions to State or Federal implementation plans	40 CFR 93	Requires Federal facilities to demonstrate compliance with State or Federal implementation plans for applicable actions in nonattainment areas.
Executive Order 12843, Procurement Requirements and Policies for Federal Agencies for Ozone-Depleting Substances	April 21, 1993	Requires Federal agencies to minimize procurement of ozone-depleting substances and conform their practices to comply with Title VI of CAA Amendments regarding stratospheric ozone protection and to recognize the increasingly limited availability of Class I substances until final phaseout.
Noise Control Act of 1972	42 USC 4901 et seq.	Requires facilities to maintain noise levels that do not jeopardize the health and safety of the public.
Water Resources		
Clean Water Act (CWA)	33 USC 1251 et seq.	Requires U.S. Environmental Protection Agency (EPA)- or State-issued permits and compliance with provisions of permits regarding discharge of effluents to waters of the United States.

Table 5–1. Federal Environmental Statutes, Regulations, and Executive Orders (Continued)

Statute, Regulation, Executive Order	Citation	Potential Requirements
Water Resources (Continued)		
National Pollutant Discharge Elimination System	33 USC 1342	Requires permit to discharge effluents (pollutants) and storm water to waters of the United States; permit modifications are required if discharge effluents are altered.
Wild and Scenic Rivers Act of 1968	16 USC 1271 et seq.	Requires consultation before construction of any new Federal project associated with a river designated as wild and scenic or under study in order to minimize and mitigate any adverse effects on the physical and biological properties of the river.
Safe Drinking Water Act of 1974	42 USC 300f et seq.; 40 CFR 141	Requires certification of any plant water treatment facility constructed on a site to ensure that the quality of public drinking water is protected and that maximum radioactive contaminant levels do not exceed 4 mrem dose equivalents.
Executive Order 11990, Protection of Wetlands	May 24, 1977	Requires Federal agencies to avoid the long- and short-term adverse impacts associated with the destruction or modification of wetlands.
Executive Order 11988, Floodplain Management	May 29, 1977	Directs 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 practical. Requires consultation if project impacts a floodplain.
Compliance with Floodplain/ Wetlands Environmental Review Requirements	10 CFR 1022	DOE’s floodplain and wetlands environmental review requirements.
Civilian Use of Nuclear Materials		
Standards for Protection Against Radiation	10 CFR 20	Establishes standards for protection against ionizing radiation resulting from activities conducted by NRC licensees for both radiation workers and the public.
Domestic Licensing of Production and Utilization Facilities	10 CFR 50	Provides for the licensing of production and utilization facilities, which includes commercial nuclear power reactors. This part describes in detail the information needed to support an operational license application, a license amendment request, design criteria, enforcement actions, and other specifics of the licensing process.
Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions	10 CFR 51	Implements NRC’s NEPA requirements.
Domestic Licensing of Special Nuclear Material	10 CFR 70	Establishes procedures and criteria for issuance of licenses to receive title to, own, possess, use, and initially transfer special nuclear material; and establishes and provides for the terms and conditions upon which NRC will issue such licenses.

Table 5–1. Federal Environmental Statutes, Regulations, and Executive Orders (Continued)

Statute, Regulation, Executive Order	Citation	Potential Requirements
Waste Management and Pollution Prevention		
Resource Conservation and Recovery Act; Hazardous and Solid Waste Amendments of 1984 (RCRA)	42 USC 6901 et seq.	Requires notification and permits for operations involving hazardous waste treatment, storage, or disposal facilities; changes to site hazardous waste operations could require amendments to RCRA hazardous waste permits involving public hearings.
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA); Superfund Amendments and Reauthorization Act of 1986	42 USC 9601 et seq.	Requires cleanup and notification if there is a release or threatened release of a hazardous substance; requires DOE to enter into Interagency Agreements with EPA and State to control the cleanup of each DOE site on the National Priorities List.
Nuclear Waste Policy Act of 1982	42 USC 10101 et seq.	Establishes a schedule for the siting, construction, and operation of a geologic repository that will provide a reasonable assurance that the public and the environment will be protected from the hazards posed by disposal of high-level radioactive waste (HLW) and spent nuclear fuel; establishes Federal responsibility and a Federal policy for the disposal of HLW and spent nuclear fuel; defines the relationship between Federal and State governments with respect to the disposal of HLW and spent nuclear fuel; and establishes a Nuclear Waste Fund.
Pollution Prevention Act of 1990	42 USC 13101 et seq.	Establishes a national policy that pollution should be reduced at the source and requires a toxic chemical source reduction and recycling report for an owner or operator of a facility required to file an annual toxic chemical release form under Section 313 of the Superfund Amendments and Reauthorization Act.
Toxic Substances Control Act of 1976 (TSCA)	15 USC 2601 et seq.	Requires compliance with inventory reporting and chemical control provisions of TSCA to protect the public from the risks of exposure to chemicals; TSCA imposes strict limitations on use and disposal of equipment contaminated with polychlorinated biphenyls.
Federal Facility Compliance Act of 1992	42 USC 6961	Waives sovereign immunity for Federal facilities under RCRA and requires DOE to develop plans and enter into agreements with States as to specific management actions for specific mixed waste streams.
Executive Order 12088, Federal Compliance with Pollution Control Standards	October 13, 1978	Requires Federal agency landlords to submit to the Office of Management and Budget an annual plan for the control of environmental pollution and to consult with EPA and State agencies regarding the best techniques and methods.

Table 5–1. Federal Environmental Statutes, Regulations, and Executive Orders (Continued)

Statute, Regulation, Executive Order	Citation	Potential Requirements
Waste Management and Pollution Prevention (Continued)		
Executive Order 12856, Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements	August 3, 1993	Requires Federal agencies to achieve 50 percent reduction of agency’s total releases of toxic chemicals to the environment and offsite transfers, to prepare a written facility pollution prevention plan not later than 1995, and to publicly report toxic chemicals entering any waste stream from Federal facilities, including any releases to the environment, and to improve local emergency planning, response and accident notification.
[Text deleted.]		
Executive Order 12580, Superfund Implementation	January 23, 1987	Delegates to the heads of Executive departments and agencies the responsibility for undertaking remedial actions for releases, or threatened releases, that are not on the National Priorities List and removal actions other than emergencies where the release is from any facility under the jurisdiction or control of Executive departments and agencies.
Biotic Resources		
Fish and Wildlife Coordination Act	16 USC 661 et seq.	Requires consultation on the possible effects on wildlife of construction, modification, or control of bodies of water in excess of 10 acres in surface area.
Bald and Golden Eagle Protection Act of 1972	16 USC 668 et seq.	Requires consultations to determine if any protected birds are found to inhabit the area. If so, must obtain a permit prior to moving any nests due to construction or operation of disposition facilities.
Migratory Bird Treaty Act of 1918	16 USC 703 et seq.	Requires consultation to determine if there are any impacts on migrating bird populations due to construction or operation of disposition facilities. If so, must develop mitigation measures to avoid adverse effects.
Anadromous Fish Conservation Act of 1965	16 USC 757	Requires consultation to determine if there are any impacts on anadromous fish that spawn in fresh water or estuaries and migrate to ocean waters and on anadromous fishery resources that are subject to depletion from water resource development.
Wilderness Act of 1964	16 USC 1131 et seq.	Requires consultation with the Department of Commerce and the Department of Interior to minimize impacts.
Wild Free-Roaming Horses and Burros Act of 1971	16 USC 1331 et seq.	Requires consultation with the Department of Interior to minimize impacts.

Table 5–1. Federal Environmental Statutes, Regulations, and Executive Orders (Continued)

Statute, Regulation, Executive Order	Citation	Potential Requirements
Biotic Resources (Continued)		
Endangered Species Act of 1973	16 USC 1531 et seq.	Requires consultation to identify endangered or threatened species and their habitats, assess impacts thereon, obtain biological opinions and, if necessary, develop mitigation measures to reduce or eliminate adverse effects of construction or operation.
Cultural Resources		
Antiquities Act of 1906	16 USC 431 et seq.	Requires protection of historic, prehistoric, and paleontological objects in federal lands from appropriation, excavation, injury, and destruction without permission.
DOE American Indian Tribal Government Policy	DOE Order 1230.2	Establishes government-to-government protocols for DOE interactions with tribal governments.
National Historic Preservation Act of 1966	16 USC 470 et seq.	Requires consultation with the State Historic Preservation Office prior to undertaking construction to ensure that no historical resources will be affected.
Archaeological and Historical Preservation Act of 1974	16 USC 469	Requires obtaining authorization for any disturbance of archaeological resources.
Archaeological Resources Protection Act of 1979	16 USC 470aa et seq.	Requires obtaining authorization for any excavation or removal of archaeological resources.
American Indian Religious Freedom Act of 1978	42 USC 1996 et seq.	Requires consultation with local Native American tribes to ensure that their religious customs, traditions, and freedoms are preserved.
Native American Graves Protection and Repatriation Act of 1990	25 USC 3001 et seq.	Requires repatriation of cultural items to Native Americans.
Executive Order 13007, Indian Sacred Sites	May 24, 1996	Requires the protection and preservation of Native American religious practices.
Executive Order 11593, Protection and Enhancement of the Cultural Environment	May 13, 1971	Requires the preservation of historic and archaeological data that may be lost during construction activities.
Worker Safety and Health		
Occupational Safety and Health Act of 1970	5 USC 5108 et seq.	Requires compliance with all applicable worker safety and health regulations.
Hazard Communication	29 CFR 1910.1200	Ensures that workers are informed of, and trained to handle, all chemical hazards in the workplace.
Transportation		
Transportation regulations	49 CFR 171, 172, 173, 174, 176, 177, 178, 397	Establishes standards for materials transportation including: packaging, marking and labeling, placarding, monitoring, routes, accident reporting, and manifesting. Includes requirements for transport by rail, air, and public highway.

Table 5–1. Federal Environmental Statutes, Regulations, and Executive Orders (Continued)

Statute, Regulation, Executive Order	Citation	Potential Requirements
Transportation (Continued)		
Packaging and Transportation of Radioactive Materials	10 CFR 71	Establishes requirements for packaging, preparation for shipment, and transportation of licensed radioactive material, and standards for approval of packaging and shipping procedures for fissile material and for a quantity of other licensed material in excess of a Type A quantity. This part establishes the certification process, including the required documentation for and testing of shipping containers, and quality assurance program that must be in place for vendors and users of approved shipping containers.
Hazardous Materials Transportation Act of 1974	49 USC 1801 et seq.	Requires compliance with hazardous materials and waste transportation requirements.
[Text deleted.]		
Regulations of the International Atomic Energy Agency	IAEA Safety Series 6	Establishes standards for radioactive materials transportation.
International Maritime Organization Regulations	International Maritime Dangerous Goods Code, 1994	Requires segregation of radioactive materials packages from other dangerous goods and other aspects of stowage.
Other		
Atomic Energy Act of 1954	42 USC 2011 et seq.	Authorizes DOE to establish standards to protect health or minimize dangers to life or property for activities under DOE's jurisdiction.
Price Anderson Act	42 USC 2210	Allows DOE to indemnify its contractors if the contract involves the risk of public liability from a nuclear incident.
Department of Energy Orders	Parts 100–500	Establishes standards and requirements to ensure safe operation of facilities.
National Environmental Policy Act (NEPA)	42 USC 4321 et seq.	Requires Federal agency to prepare an environmental impact statement for any major Federal action with significant environmental impact.
NEPA Implementing Procedures	10 CFR 1021	Requires DOE to follow its own implementing regulations to ensure environmental quality.
Emergency Planning and Community Right-To-Know Act of 1986	42 USC 11001 et seq.	Requires the development of emergency response plans and reporting requirements for chemical spills and other emergency releases, and imposes right-to-know reporting requirements covering storage and use of chemicals that are reported on toxic chemical release forms.
Executive Order 11514, Protection and Enhancement of Environmental Quality	March 6, 1970	Requires Federal agencies to demonstrate leadership in achieving the environmental quality goals of NEPA; provides for DOE consultation with appropriate Federal, State, and local agencies in carrying out their activities as they affect the environment.

Table 5–1. Federal Environmental Statutes, Regulations, and Executive Orders (Continued)

Statute, Regulation, Executive Order	Citation	Potential Requirements
Other (Continued)		
Farmland Protection Policy Act of 1981	7 USC 4201 et seq.	Requires avoidance of any adverse effects to prime and unique farmlands.
Executive Order 12114, Environmental Effects Abroad of Major Federal Actions	January 4, 1979	Requires officials of Federal agencies having ultimate responsibility for authorizing and approving actions encompassed by this order to be informed of pertinent environmental considerations and to take such considerations into account, along with other pertinent considerations of national policy, in making decisions regarding such actions. While based on independent authority, this order furthers the purpose of NEPA.
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations	February 11, 1994	Requires Federal agencies to identify and address as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.
Executive Order 12656, Assignment of Emergency Preparedness Responsibilities	November 18, 1988	Assigns emergency preparedness responsibilities to Federal departments and agencies.

Table 5–2. Summary of Consultations Initiated by DOE

DOE Site	Subject	DOE Consultation Letter		Agency/Group Response	
		Addressed To (Date of Letter)	Page No.	From (Date of Response or Last Contact)	Page No.
Hanford	Cultural Resources	Mr. David Hansen State Historic Preservation Officer (October 30, 1998)	O–2	Mr. Robert Whitlam (March 2, 1999)	NA ^a
	Native American	Mr. Russell Jim Confederated Tribes and Bands of the Yakima Indian Nation (October 30, 1998)	O–4	Ms. Nancy Peters (March 5, 1999)	NA ^b
	Native American	Ms. Donna L. Powaukee Nez Perce Tribe (October 30, 1998)	O–6	Mr. Pat Sobotta (March 2, 1999)	NA ^b
	Native American	Ms. Lenora Seelatsee Wanapum Band (October 30, 1998)	O–8	Ms. Lenora Seelatsee (March 5, 1999)	NA ^b
	Native American	Mr. J.R. Wilkinson Confederated Tribes of the Umatilla Indian Reservation (October 30, 1998)	O–10	Mr. J.R. Wilkinson (March 2, 1999)	NA ^b
	Ecological Resources	Mr. Richard Roy U.S. Fish and Wildlife Service (July 28, 1998)	O–12	Mr. Richard Roy (December 3, 1998)	O–14
	Ecological Resources	Mr. Jay McConnaughey Washington Department of Fish and Wildlife (July 28, 1998)	O–16	Mr. Jay McConnaughey (December 7, 1998)	O–18
INEEL	Cultural Resources	Mr. Robert Yohe State Historic Preservation Officer (October 30, 1998)	O–21	Mr. Robert Yohe (March 2, 1999)	NA ^a
	Native American	Mr. Keith Tinno Fort Hall Reservation (October 30, 1998)	O–23	Mr. Jim Reed (March 2, 1999)	NA ^b
	Ecological Resources	Ms. Susan Burch U.S. Fish and Wildlife Service (July 28, 1998)	O–25	Mr. Robert Kuesink (August 18, 1998)	O–27
	Ecological Resources	Mr. George Stephens Idaho Department of Fish and Game (July 28, 1998)	O–29	Mr. George Stephens (August 12, 1998 and February 12, 1999)	O–31 O–32
Pantex	Native American	Mr. Virgil Franklin Sr. Cheyenne-Arapaho Tribe of Oklahoma (October 30, 1998)	O–33	Mr. Gordon Yellowman (March 2, 1999)	NA ^b
	Native American	Mr. Billy Evans Horse Kiowa Tribe of Oklahoma (October 30, 1998)	O–35	Mr. William Hensley (March 2, 1999)	NA ^b
	Native American	Mr. D.J. Mowatt Apache Tribe of Oklahoma (October 30, 1998)	O–37	Mr. D.J. Mowatt (March 2, 1999)	NA ^b
	Native American	Mr. Don Wauahdooh Comanche Tribe of Oklahoma (October 30, 1998)	O–39	Ms. Phyllis Attocknie (March 2, 1999)	NA ^b
	Ecological Resources	Mr. Robert Short U.S. Fish and Wildlife Service (July 28, 1998)	O–41	Agency office had no comment based on personal communication with Mr. Clayton Napier (December 2, 1998)	NA ^a
	Ecological Resources	Mr. Pat Martin Texas Parks and Wildlife Department (July 28, 1998)	O–43	Ms. Shannon Breslin (March 22, 1999)	O–45

Table 5-2. Summary of Consultations Initiated by DOE (Continued)

DOE Site	Subject	DOE Consultation Letter		Agency/Group Response	
		Addressed To (Date of Letter)	Page No.	From (Date of Response or Last Contact)	Page No.
SRS	Cultural Resources	Dr. Rodger Stroup State Historic Preservation Officer (October 30, 1998)	O-46	Ms. Nancy Brock (November 12, 1998)	O-48
	Native American	Mr. Tom Berryhill National Council of the Muskogee Creek (October 30, 1998)	O-49	Mr. Ken Childers (March 2, 1999)	NA ^b
	Native American	Ms. Nancy Carnley Ma Chis Lower Alabama Creek Indian Tribe (October 30, 1998)	O-51	Ms. Nancy Carnley (March 2, 1999)	NA ^b
	Native American	Miko Tony Hill Indian People's Muskogee Tribal Town Confederacy (October 30, 1998)	O-53	Miko Tony Hill (March 2, 1999)	NA ^b
	Native American	Ms. Virginia Montoya Pee Dee Indian Association (October 30, 1998)	O-55	Ms. Virginia Montoya (March 2, 1999)	NA ^b
	Native American	Mr. Al Rolland Yuchi Tribal Organization, Inc. (October 30, 1998)	O-57	Mr. Al Rolland (March 2, 1999)	NA ^b
	Native American	Mr. John Ross United Keetoowah Band (October 30, 1998)	O-59	Ms. Julie Moss (March 2, 1999)	NA ^b
	Ecological Resources	Mr. Roger Banks U.S. Fish and Wildlife Service (July 28, 1998)	O-61	Mr. Edwin EuDaly (September 8, 1998)	O-63
	Ecological Resources	Mr. Tom Murphy South Carolina Department of Natural Resources	O-67	Agency office had no comment based on personal communication with Mr. Tom Murphy (December 2, 1998)	NA ^a

^a No written response was received. Response obtained via telephone conversation.

^b No response was received.