

**CHAPTER 5**  
**APPLICABLE LAWS, REGULATIONS, AND OTHER**  
**REQUIREMENTS**

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## 5 APPLICABLE LAWS, REGULATIONS, AND OTHER REQUIREMENTS

### 5.1 Introduction

As part of the National Environmental Policy Act (NEPA) process, an environmental impact statement (EIS) must consider whether actions described under its alternatives would threaten a violation of Federal, state, or local law or requirement imposed for the protection of the environment [40 *Code of Federal Regulations* (CFR) 1508.27] or require a permit, license, or other entitlement (40 CFR 1502.25). This chapter provides a summary of environmental requirements, agreements, and permits that relate to consolidation and relocation of mission-critical chemistry and metallurgy research (CMR) capabilities. This chapter includes the requirements from the 2003 *Final Environmental Impact Statement for the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE 2003b) that remain valid, as well as new requirements identified since the first EIS was prepared.

A number of Federal environmental laws affect environmental protection, health, safety, compliance, and/or consultation at every U.S. Department of Energy (DOE) location. Certain environmental requirements also have been delegated to state authorities for enforcement and implementation, and state legislatures have adopted additional laws to protect health and safety and the environment. 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, directives, and other requirements.

The various action alternatives analyzed in this *Supplemental Environmental Impact Statement for the Nuclear Facility Portion of the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico (CMRR-NF SEIS)* involve either the operation of existing DOE facilities or the construction and operation of new DOE facilities and the transportation of materials. Actions required to comply with statutes, regulations, and other Federal, state, and local requirements may depend on whether a facility is newly built (preoperational) or is incorporated in whole or in part into an existing facility. Chapter 2 provides a detailed discussion of these alternatives.

### 5.2 Background

Requirements governing the consolidation and relocation of CMR operations arise primarily from six sources: Congress, Federal agencies, Executive orders, state legislatures, state agencies, and local governments. In general, Federal statutes establish national policies, create broad legal requirements, and authorize Federal agencies to create regulations that conform to the statutes. Detailed implementation of these statutes is delegated to various Federal agencies such as DOE, the U.S. Department of Transportation, and the U.S. Environmental Protection Agency (EPA). For many environmental laws under EPA jurisdiction, state agencies may be delegated responsibility for the majority of program implementation activities, such as permitting and enforcement, but EPA usually retains oversight of the delegated program.

Some applicable laws, such as NEPA, the Endangered Species Act, and the Emergency Planning and Community Right-To-Know Act, require specific reports and/or consultations rather than ongoing permits or activities. Such requirements would be satisfied through the legal/regulatory process, including preparation of this *CMRR-NF SEIS*, leading to the consolidation and relocation of CMR operations.

Other applicable laws establish general requirements that must be satisfied, but do not include processes (such as the issuance of permits or licenses) to consider compliance prior to specific instances of violations or other events that trigger their provisions. These include the Toxic Substances Control Act (which addresses polychlorinated biphenyl [PCB] transformers and other designated substances); the Federal Insecticide, Fungicide, and Rodenticide Act; the Hazardous Materials Transportation Act; and (in the case of a hazardous substance spill) the Comprehensive Environmental Response, Compensation, and Liability Act (also known as Superfund).

Executive orders establish policies and requirements for Federal agencies. Such orders are applicable to Executive branch agencies, but do not have the force of law or regulation.

State legislatures develop their own laws to supplement, as well as implement, Federal laws for protection of air, water, and groundwater quality. State legislation may address solid waste management programs; locally rare or endangered species; and local resource, historic, and cultural values. The laws of local governments add an additional level of public protection, often focusing on zoning, utilities, and public health and safety concerns.

Regulatory agreements and compliance orders may also be initiated to establish responsibilities and timeframes for Federal facilities to come into compliance with provisions of applicable Federal and state laws. There are also other agreements, memoranda of understanding, or formalized arrangements that establish cooperative relationships and requirements.

The alternatives being considered for the consolidation and relocation of CMR operational capabilities and materials would all be located within New Mexico, on Los Alamos National Laboratory (LANL) property controlled by DOE. For a broader review of environmental regulations and compliance issues at LANL, see the 2008 *Final Site-Wide Environmental Impact Statement for Continued Operation of Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE 2008a).

DOE has authority to regulate some environmental activities, as well as the health and safety aspects of nuclear facility operations. The Atomic Energy Act of 1954, as amended, is the principal authority for DOE regulatory activities not externally regulated by other Federal or state agencies. Regulation of DOE activities is primarily established through the use of DOE orders and regulations.

External environmental laws, regulations, and Executive orders can be categorized as applicable to either broad environmental planning and consultation requirements or regulatory environmental protection and compliance activities, although some requirements are applicable to both planning and operations compliance.

Section 5.3 of this chapter discusses the major applicable Federal laws and regulations that impose nuclear safety and environmental protection requirements on the subject facilities and might require the facilities to obtain a permit or license (or amendment thereof) prior to initiation of the relocation project. Each of the applicable regulations and statutes establishes how activities are to be conducted or how potential releases of pollutants are to be controlled or monitored. They include requirements for the issuance of permits or licenses for new operations or new emission sources and for amendments to existing permits or licenses to allow new types of operations at existing sources.

Section 5.4 discusses applicable Executive orders. Section 5.5 identifies applicable DOE directives and regulations for compliance with the Atomic Energy Act; the Occupational Safety and Health Act; and other environmental, safety, and health requirements. Section 5.6 identifies state and local laws, regulations, and ordinances, as well as local agreements potentially affecting the consolidation and relocation of CMR

operations. Section 5.7 discusses consultations with applicable agencies and federally recognized American Indian tribes.

### 5.3 Applicable Federal Laws and Regulations

This section describes the Federal environmental, safety, and health laws and regulations that could apply to the various alternatives analyzed in this *CMRR-NF SEIS*. These regulations address such areas as energy conservation, administrative requirements and procedures, nuclear safety, and classified information. They are identified in **Table 5–1**. For ease of identification, a citation column is included in the table, where laws are identified using a *United States Code* (U.S.C.) or Public Law citation, regulations are identified with a CFR citation, and Executive orders are listed by number. This table does not include DOE directives, which are provided in Section 5.5, or state requirements, which are provided in Section 5.6.

**Table 5–1 Potentially Applicable Environmental, Safety, and Health Laws, Regulations, and Executive Orders**

<i>Laws, Regulations, Orders, Other Requirements</i>	<i>Citation</i>
<b>Radioactive Materials and Waste Management</b>	
Atomic Energy Act of 1954, as amended	42 U.S.C. 2011 et seq.
Bob Stump National Defense Authorization Act for Fiscal Year 2003	Public Law 107-314
“Byproduct Material”	10 CFR Part 962
“Environmental Radiation Protection Standards for Management of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Materials”	40 CFR Part 191
Low-Level Radioactive Waste Policy Act of 1980, as amended	42 U.S.C. 2021 et seq.
Price-Anderson Act	42 U.S.C. 2210
Waste Isolation Pilot Plant Land Withdrawal Act, as amended	Public Law 102-579, as amended by Public Law 104-201
“Schedule C—Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release”	10 CFR 30.72, Schedule C
<b>Ecological Resources</b>	
Bald and Golden Eagle Protection Act of 1973, as amended	16 U.S.C. 668 et seq.
Endangered Species Act of 1973, as amended	16 U.S.C. 1531 et seq.
Farmland Protection Policy Act of 1981	7 U.S.C 4201 et seq.
Fish and Wildlife Coordination Act	16 U.S.C. 661 et seq.
<i>Invasive Species</i>	Executive Order 13112
Migratory Bird Treaty Act of 1918, as amended	16 U.S.C. 703 et seq.
<i>Protection of Wetlands</i>	Executive Order 11990
<i>Responsibilities of Federal Agencies to Protect Migratory Birds</i>	Executive Order 13186
<b>Cultural and Paleontological Resources</b>	
American Indian Religious Freedom Act of 1978	42 U.S.C. 1996
Antiquities Act of 1906, as amended	16 U.S.C. 431 et seq.
Archaeological and Historic Preservation Act of 1960, as amended	16 U.S.C. 469 et seq.
Archaeological Resources Protection Act of 1979, as amended	16 U.S.C. 470aa et seq.
<i>Consultation and Coordination with Indian Tribal Governments</i>	Executive Order 13175
<i>Indian Sacred Sites</i>	Executive Order 13007
Manhattan Project National Historical Park Study Act	Public Law 108-340
National Historic Preservation Act of 1966, as amended	16 U.S.C. 470 et seq.
<i>Protection and Enhancement of the Cultural Environment</i>	Executive Order 11593

<b><i>Laws, Regulations, Orders, Other Requirements</i></b>	<b><i>Citation</i></b>
Native American Graves Protection and Repatriation Act of 1990	25 U.S.C. 3001 et seq.
<i>Preserve America</i>	Executive Order 13287
“Protection of Historic and Cultural Properties”	36 CFR Part 800
<i>Trails for America in the 21st Century</i>	Executive Order 13195
<b>Worker Safety and Health</b>	
“Chronic Beryllium Disease Prevention Program”	10 CFR Part 850
“Occupational Radiation Protection”	10 CFR Part 835
Occupational Safety and Health Act of 1970	29 U.S.C. 651 et seq.
“Occupational Safety and Health Standards”	29 CFR Part 1910
<i>Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction</i>	Executive Order 12699
“Worker Safety and Health Program”	10 CFR Part 851
<b>Radiological Safety Oversight and Radiation Protection</b>	
“Procedural Rules for DOE Nuclear Activities”	10 CFR Part 820
“Nuclear Safety Management”	10 CFR Part 830
<b>Transportation</b>	
Hazardous Materials Transportation Act of 1975, as amended	49 U.S.C. 5101 et seq.
“Packaging and Transportation of Radioactive Material”	10 CFR Part 71
“Hazardous Materials Tables and Communications Emergency Response Information Requirements”	49 CFR Part 172
<b>Emergency Planning, Pollution Prevention, and Conservation</b>	
<i>Assignment of Emergency Preparedness Responsibilities</i>	Executive Order 12656
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also known as Superfund)	42 U.S.C. 9601 et seq.
Emergency Management and Assistance	44 CFR 1.1
Emergency Planning and Community Right-to-Know Act	42 U.S.C. 11001 et seq.
<i>Federal Emergency Management</i>	Executive Order 12148
<i>Federal Compliance with Pollution Control Standards</i>	Executive Order 12088
<i>Federal Leadership in Environmental, Energy and Economic Performance</i>	Executive Order 13514
Homeland Security Act of 2002	6 U.S.C. 101 et seq.
Justice Assistance Act of 1984	42 U.S.C. 3701–3799
<i>National Defense Industrial Resources Preparedness</i>	Executive Order 12919
Pollution Prevention Act of 1990	42 U.S.C. 13101 et seq.
<i>Proliferation of Weapons of Mass Destruction</i>	Executive Order 12938
Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, as amended	42 U.S.C. 5121
<i>Strengthening Federal Environmental, Energy, and Transportation Management</i>	Executive Order 13423
<i>Superfund Implementation</i>	Executive Order 12580
<b>Environmental Justice and Protection of Children</b>	
<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
<b>Environmental Quality</b>	
Council on Environmental Quality National Environmental Policy Act Regulations	40 CFR Parts 1500–1508
“Energy Code for New Federal, Commercial, and Multi-Family High Rise Residential Buildings,” “Energy Efficiency Standards for New Federal Low-Rise Residential Buildings”	10 CFR Part 434, 10 CFR Part 435
Energy Independence and Security Act of 2007	Public Law 110-140

<i>Laws, Regulations, Orders, Other Requirements</i>	<i>Citation</i>
“Federal Energy Management and Planning Programs”	10 CFR Part 436
Federal Insecticide, Fungicide, and Rodenticide Act	7 U.S.C. 136 et seq.
National Environmental Policy Act of 1969	42 U.S.C. 4321 et seq.
“National Environmental Policy Act Implementing Procedures”	10 CFR Part 1021
<i>Protection and Enhancement of Environmental Quality</i>	Executive Order 11514
<i>Relating to Protection and Enhancement of Environmental Quality</i>	Executive Order 11991
<b>Air Quality and Noise</b>	
Clean Air Act of 1970, as amended	42 U.S.C. 7401 et seq.
“National Emission Standards for Hazardous Air Pollutants”	40 CFR Part 61
“National Emission Standards for Hazardous Air Pollutants for Source Categories”	40 CFR Part 63
Noise Control Act of 1972, as amended	42 U.S.C. 4901 et seq.
“Standards of Performance for New Stationary Sources”	40 CFR Part 60
<b>Water Resources</b>	
Clean Water Act of 1972, as amended	33 U.S.C. 1251 et seq.
“Compliance with Floodplain and Wetland Environmental Review Requirements”	10 CFR Part 1022
“EPA-Administered Permit Programs: The National Pollutant Discharge Elimination System”	40 CFR Part 122
<i>Floodplain Management</i>	Executive Order 11988
“National Primary Drinking Water Regulations”	40 CFR Parts 141–149
Safe Drinking Water Act of 1974, as amended	42 U.S.C. 300(f) et seq.
<b>Hazardous Waste and Materials Management</b>	
“EPA Administered Permit Programs: The Hazardous Waste Permit Program”	40 CFR Part 270
Federal Facility Compliance Act of 1992	Public Law 102-386
“Hazardous Waste Management System”	40 CFR Part 260
“Land Disposal Restrictions”	40 CFR Part 268
“Standards for Universal Waste Management”	42 CFR Part 273
Resource Conservation and Recovery Act of 1976, as amended	42 U.S.C. 6901 et seq.
Toxic Substances Control Act of 1976	15 U.S.C. 2601 et seq.

CFR = Code of Federal Regulations, U.S.C. = United States Code.

**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 U.S. policy to protect and preserve the inherent and constitutional right of American Indians to believe, express, and exercise their traditional religions. This act further requires Federal actions to 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 et seq.)**—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 from the appropriate Federal department.

**Archaeological and Historic Preservation Act of 1960, as amended (16 U.S.C. 469 et seq.)**—The purpose of this act is to preserve 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 to further archaeological knowledge in the public interest, and resources removed are to remain the property of the United States. This law also requires that, whenever any Federal agency finds that its activities may cause irreparable loss or destruction of significant scientific, prehistoric, or archaeological data, that agency must notify the U.S. Department of the Interior and may request the Department of the Interior to undertake the recovery, protection, and preservation of such data. Consent must be obtained from the American Indian tribe or Federal agency that has authority over the land on which a resource is located before issuance of a permit, and the permit must contain the terms and conditions requested by the tribe or Federal agency.

**Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.), as amended by the Price-Anderson Act (42 U.S.C. 2210) and the Bob Stump National Defense Authorization Act (Public Law 107-314)**—This act provides fundamental jurisdictional authority to DOE and the U.S. Nuclear Regulatory Commission (NRC) over governmental and commercial use of nuclear materials. The Atomic Energy Act authorizes DOE to establish standards to protect health or minimize dangers to life or property for activities under DOE jurisdiction. DOE has issued a series of orders that establish an extensive system of standards and requirements to ensure safe operation of DOE facilities (see Section 5.5).

DOE regulations are found in Title 10 of the CFR. The DOE regulations that are most relevant to radioactive materials and waste management and worker health and safety include the following:

- “Nuclear Safety Management” (10 CFR Part 830)
- “Occupational Radiation Protection” (10 CFR Part 835)
- “Chronic Beryllium Disease Prevention Program” (10 CFR Part 850)
- “Worker Safety and Health Program” (10 CFR Part 851)
- “Byproduct Material” (10 CFR Part 962)

The Atomic Energy Act 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 relevant to the radioactive materials and waste management activities addressed in this *CMRR-NF SEIS* is the “Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes” (40 CFR Part 191). This regulation establishes radiation standards for the management and storage of spent nuclear fuel, high-level radioactive waste, and transuranic waste at facilities regulated by NRC or Agreement States, as well as radiation standards for management and storage of spent nuclear fuel, high-level radioactive waste, and transuranic waste at disposal facilities operated by DOE that are not regulated by NRC or Agreement States. The regulation also establishes limitations on radiation doses that might occur after closure of the disposal system. These standards include both individual protection requirements and groundwater protection standards.

The Price-Anderson Act, which was signed into law in 1957 as an amendment to the Atomic Energy Act of 1954, provides for payment of public liability claims in the event of a nuclear incident. The following are key features of this act:

- Assures the availability of billions of dollars to compensate members of the public who suffer a loss as the result of a nuclear incident
- Establishes a simplified claims process for the public to expedite recovery for losses

- Provides for immediate emergency reimbursement of costs associated with any evacuation that may be ordered
- Establishes liability limits for each nuclear incident involving commercial nuclear energy and government use of nuclear materials
- Guarantees that the Federal Government will review the need for compensation beyond that provided

The Bob Stump National Defense Authorization Act, enacted by the Congress in 2002, amended the Atomic Energy Act to add Section 234C, requiring DOE to promulgate worker health and safety regulations to cover contractors with Price-Anderson indemnification agreements in their contracts. DOE promulgated regulations under this act in February 2006 (71 *Federal Register* [FR] 6857) as 10 CFR Part 851, “Worker Safety and Health Program.” The regulations codified and enhanced the DOE worker protection program.

**Bald and Golden Eagle Protection Act of 1973, as amended (16 U.S.C. 668 et seq.)**—This act 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 the Interior to relocate a nest that interferes with resource development or recovery operations.

**Clean Air Act of 1970, as amended (42 U.S.C. 7401 et seq.)**—This 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” regarding 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 for criteria pollutants. EPA has identified and set National Ambient Air Quality Standards under 40 CFR Part 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).

Emissions of air pollutants are regulated by EPA under 40 CFR Parts 50 through 99. Emissions of radionuclides and hazardous air pollutants from DOE facilities are regulated under the National Emission Standards for Hazardous Air Pollutants Program (40 CFR Parts 60, 61, and 63).

**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 of 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 Part 122, and authority 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, which requires EPA to establish regulations for permits for stormwater discharges associated with industrial activities, including construction activities disturbing 5 or more acres (2 hectares) (64 FR 68721). After March 2003, the threshold for obtaining a permit was lowered to 1 acre (0.4 hectares). Stormwater provisions of the NPDES program are set forth in 40 CFR 122.26. Permit modifications are required if discharge effluent is altered.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601 et seq.) (also known as Superfund)**—CERCLA provides (1) a program for emergency response to and reporting of a release or threat of a release of a hazardous substance to the environment and (2) a statutory framework for remediation of hazardous substance releases from Federal, state, and private sites. Using the Hazard Ranking System, contaminated sites are ranked and may be included on the National Priorities List. Section 120 of CERCLA specifies requirements for investigations, remediation, and natural resource restoration, as necessary, at Federal facilities, and also provides reporting requirements for hazardous substance contamination on properties to be transferred. LANL is not on the National Priorities List. Potential release sites at LANL are investigated and remediated under state authorities.

**Emergency Management and Assistance (44 CFR 1.1)**—This regulation contains the policies and procedures for the Federal Emergency Management Act, National Flood Insurance Program, Federal Crime Insurance Program, Fire Prevention and Control Program, Disaster Assistance Program, and Preparedness Program, including radiological planning and preparedness.

**Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11001 et seq.)**—This amendment to CERCLA requires that facilities provide notice to and coordinate emergency planning with communities and government agencies concerning inventories and any unplanned releases of specific hazardous chemicals. EPA implements this act under regulations found in 40 CFR Parts 355, 370, and 372. Under Subtitle A of this act, Federal facilities are required to provide information to and coordinate with local and state emergency response planning authorities to ensure that emergency plans are sufficient to respond to unplanned releases of hazardous substances. Voluntary implementation of the provisions of this act at LANL began in 1987, and chemical inventories and emissions have been reported annually since 1988.

**Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)**—This act is intended to prevent the further decline of endangered and threatened species and to restore these species and their habitats. Section 7 of this act requires Federal agencies that have 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 the U.S. Department of the Interior or the National Marine Fisheries Service of the U.S. Department of Commerce to ensure the action does not jeopardize the species or destroy its habitat. 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 (50 CFR Part 17).

**“Energy Code for New Federal, Commercial, and Multi-Family High Rise Residential Buildings” (10 CFR Part 434), “Energy Efficiency Standards for New Federal Low-Rise Residential Buildings” (10 CFR Part 435)**—The provisions of these regulations provide minimum standards for energy efficiency and energy conservation performance for the design of new Federal, commercial, and multi-family high rise residential buildings and new Federal low-rise residential buildings. The performance standards are designed to achieve the maximum practicable improvements in energy efficiency and conservation and increases in the use of nondepletable sources of energy.

**Energy Independence and Security Act of 2007 (Public Law 110-140)**—This act establishes energy management goals and requirements and amends portions of the National Energy Conservation Policy Act. This act sets Federal energy management requirements in several areas, including the following: energy reduction goals for Federal buildings; facility management/benchmarking; performance and standards for new building, major renovations, and high-performance buildings; energy savings performance contracts; metering; energy-efficient product procurement; Office of Management and Budget reporting; and reductions in petroleum use/increases in alternative fuel use.

**Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)**—This act requires Federal agencies to consider prime or unique farmlands when planning major projects and programs on Federal lands. Federal agencies are required to use prime and unique farmland criteria developed by the U.S. Department of Agriculture’s Soil Conservation Service. Under the Farmland Protection Policy Act, the Soil Conservation Service is authorized to maintain an inventory of prime and unique farmlands in the United States to identify the location and extent of rural lands important in the production of food, fiber, forage, and oilseed crops (7 CFR Part 657).

**“Federal Energy Management and Planning Programs” (10 CFR Part 436)**—The objectives of Federal energy management and planning programs are (1) to apply energy conservation measures to and improve the design of Federal buildings such that the energy consumption per gross square foot of Federal buildings in use during fiscal year 1995 is at least 10 percent less than the energy consumption per gross square foot in 1985; (2) to promote the methodology and procedures for conducting life-cycle cost analyses of proposed investments in building energy systems, building water systems, and energy and water conservation measures; (3) to promote the use of energy savings performance contracts by Federal agencies for implementation of privately financed investment in building and facility energy conservation measures for existing Federally owned buildings; and (4) to promote efficient use of energy in all agency operations through general operations plans.

**Federal Facility Compliance Act of 1992 (42 U.S.C. 6961 et seq.)**—This act, enacted on October 6, 1992, amends the Resource Conservation and Recovery Act (RCRA), making Federal facilities subject to potential fines and penalties for violations of RCRA, the law that sets requirements for management of hazardous waste. Prior to its passage, mixed waste stored at DOE sites generally did not comply with RCRA mixed waste land disposal restrictions because of a lack of treatment options. This act requires DOE to (1) prepare and submit a national inventory report identifying its mixed waste volume, characteristics, treatment capacity, and available technologies and (2) prepare and submit (to the appropriate state or EPA regulators) Site Treatment Plans for developing or using the needed treatment capacity along with schedules for treating the mixed waste at each DOE site. The LANL approved Site Treatment Plan is enforced by a compliance order issued by the New Mexico Environment Department in October 1995. It is available for public review.

**Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.)**—This act regulates the use, registration, and disposal of several classes of pesticides to ensure that pesticides are applied in a manner that protects the applicators, workers, and the environment. Implementing regulations include recommended procedures for the disposal and storage of pesticides (40 CFR Part 165) and worker protection standards (40 CFR Part 170).

**Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.)**—This 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 the U.S. Department of the Interior to provide assistance. This act requires consultation with USFWS on the possible effects of construction, projects, or activities affecting bodies of water in excess of 10 acres (approximately 4 hectares) in surface area on wildlife. This act also requires consultation with the head of the state agency that administers wildlife resources in the affected state.

**Hazardous Materials Transportation Act of 1975, as amended (49 U.S.C. 5101 et seq.)**—This act requires the U.S. Department of Transportation 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 U.S. Department of Transportation regulations are preempted (49 U.S.C. 5125). This, in effect, allows state and local governments to enforce only the Federal regulations, not to change or expand upon them.

This program is administered by the Research and Special Programs Administration of the U.S. Department of Transportation, which, when covering the same activities, coordinates its regulations with NRC (under the Atomic Energy Act) and EPA (under RCRA). The U.S. Department of Transportation regulations, which may be found in 49 CFR Parts 171 through 178 and 49 CFR Parts 383 through 397, contain requirements for identifying a material as hazardous or radioactive. These regulations interface with the NRC regulations for identifying material, but U.S. Department of Transportation 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. In addition, EPA regulations established in 40 CFR Part 262 apply to offsite transportation of hazardous wastes from LANL.

Public access to many portions of the LANL facility is controlled at all times through the use of gates and guards. Onsite transportation of hazardous materials, wastes, and contaminated equipment that is conducted entirely on DOE property is subject to applicable DOE directives and safety requirements set forth in 10 CFR Part 830, Subpart B. Offsite transportation of hazardous materials, wastes, and contaminated equipment from LANL over public highways is subject to applicable U.S. Department of Transportation and EPA regulations, as well as applicable DOE directives.

The NRC “Packaging and Transportation of Radioactive Material” (10 CFR Part 71) regulations include detailed packaging design requirements and package certification testing requirements. Complete documentation of design and safety analysis and the results of required certification tests 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.

**Justice Assistance Act of 1984 (42 U.S.C. 3701–3799)**—This act establishes emergency Federal law enforcement assistance to state and local governments in responding to a “law enforcement emergency,” defined as an uncommon situation that requires law enforcement, that is or threatens to become of serious or epidemic proportions, and with respect to which state and local resources are inadequate to protect the

lives and property of citizens or to enforce the criminal law. Emergencies that are not of an ongoing or chronic nature (for example, the Mount Saint Helens volcanic eruption) are eligible for Federal law enforcement assistance, including funds, equipment, training, intelligence information, and personnel.

**Low-Level Radioactive Waste Policy Act of 1980, as amended (42 U.S.C. 2021 et seq.)**—This act amends the Atomic Energy Act to specify that the Federal Government is responsible for disposal of low-level radioactive waste generated by certain activities and that each state is responsible for disposal of other low-level radioactive waste generated within its borders. It provides for and encourages interstate compacts to carry out state responsibilities. As a result of this act, low-level radioactive waste owned or generated by DOE remains the responsibility of the Federal Government.

**Manhattan Project National Historical Park Study Act (Public Law 108-340)**—This act directs the Secretary of the Interior to conduct a study on the preservation and interpretation of the historic sites of the Manhattan Project for potential inclusion in the National Park System (October 18, 1998).

**Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 et seq.)**—This act is intended to protect birds that follow common migration patterns across the United States, 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. This 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 the proposed Chemistry and Metallurgy Research Building Replacement (CMRR) Project is required under this act, DOE is required to consult with USFWS regarding impacts on migratory birds and to avoid or minimize these effects in accordance with the U.S. Fish and Wildlife Service Mitigation Policy. A split of authority currently exists between Federal courts regarding whether this act applies to Federal agencies.

**National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.)**—The purposes of NEPA are to (1) declare a national policy that will encourage productive and enjoyable harmony between people and their environment, (2) promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of people, (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 Parts 1500–1508) can result in a categorical exclusion, an environmental assessment and Finding of No Significant Impact, or an EIS and Record of Decision. This *CMRR-NF SEIS* was prepared in accordance with NEPA requirements, CEQ regulations for implementing the procedural requirements of NEPA (40 CFR Parts 1500–1508), and “National Environmental Policy Act Implementing Procedures” (10 CFR Part 1021; DOE Order 451.1B, Change 1). It discusses reasonable alternatives and their potential environmental consequences.

**National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.)**—This act requires that sites with significant national historic value be placed on the National Register of Historic Places, which is maintained by the Secretary of the Interior. The major provisions of this act for DOE consideration are Sections 106 and 110. Both sections aim to ensure that historic properties are appropriately considered in planning Federal initiatives and actions. Section 106 is a specific, issue-related mandate to which Federal agencies must adhere. It is a reactive mechanism driven by a Federal action. Section 110, in contrast, sets out broad Federal agency responsibilities with respect to historic properties. It is a proactive mechanism that emphasizes ongoing management of historic preservation sites and activities at Federal facilities. No permits or certifications are required under the act.

Section 106 requires the head of any Federal agency with direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking to ensure compliance with the provisions of the act. It compels Federal agencies to “take into account” the effect of their projects on historical and archaeological resources and to give the Advisory Council on Historic Preservation the opportunity to comment on such effects. Section 106 mandates consultation during Federal actions if the undertaking has the potential to affect a historic property. This consultation normally involves State or Tribal Historic Preservation Officers, or both, and may include other organizations and individuals, such as local governments and American Indian tribes. If an adverse effect is found, the consultation often ends with the execution of a Memorandum of Agreement that states how the adverse effect will be resolved.

The regulations implementing Section 106, found in 36 CFR Part 800, were revised on December 12, 2000, to modify the process by which Federal agencies consider the effects of their undertakings on historic properties and to provide the Advisory Council on Historic Preservation with a reasonable opportunity to comment on such undertakings, as required by Section 106 of this act. In promulgating the new regulations, CEQ sought to better balance the interests and concerns of various users of the Section 106 process, including Federal agencies, State Historic Preservation Officers, Tribal Historic Preservation Officers, American Indians and Native Hawaiians, industry, and the public.

**Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 et seq.)**—This act establishes a means for American Indians to request the return or repatriation of human remains and other cultural items presently held by Federal agencies or federally assisted museums or institutions. This act also contains provisions regarding the intentional excavation and removal of, inadvertent discovery of, and illegal trafficking in American Indian human remains and cultural items. Major actions under this law include the following: (1) establishing a review committee with monitoring and policymaking responsibilities; (2) developing regulations for repatriation, including procedures for identifying lineal descent or cultural affiliation needed for claims; (3) providing oversight of museum programs designed to meet the inventory requirements and deadlines of this law; and (4) developing procedures to handle unexpected discoveries of graves or grave goods during activities on Federal or Tribal lands. All Federal agencies that manage land or are responsible for archaeological collections obtained from their lands or generated by their activities must comply with this act. DOE managers of ground-disturbing activities on Federal and tribal lands are to be aware of the statutory provisions treating inadvertent discoveries of American Indian remains and cultural objects. Regulations implementing this act are found in 43 CFR Part 10.

**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 that further the national policy of promoting an environment free from noise that jeopardizes health and welfare. Federal, state, and local agencies enforce the standards and requirements of this act to regulate noise at facilities such as LANL. DOE must comply with this act for any of the activities being considered in this *CMRR-NF SEIS*.

**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 the Occupational Safety and Health Administration. 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 Occupational Safety and Health Administration 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 Part 1960, “Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters;” and other related site-specific worker protection activities.

**“Occupational Safety and Health Standards” (29 CFR Part 1910)**—This regulation establishes Occupational Safety and Health Administration requirements for employee safety in a variety of working environments. It addresses employee emergency and fire prevention plans (Section 1910.38), hazardous waste operations and emergency response (Section 1920.120), and hazards communication (Section 1910.1200) to make employees aware of the dangers they face from hazardous materials in their workplace. These regulations do not directly apply to Federal agencies. However, Section 19 of the Occupational Safety and Health Act (29 U.S.C. 668) requires all Federal agencies to have occupational safety programs “consistent” with Occupational Safety and Health Act standards.

**Pollution Prevention Act of 1990 (42 U.S.C. 13101 et seq.)**—This 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. In response to the policies established by the Pollution Prevention Act, DOE committed to participation in the Superfund Amendments and Reauthorization Act, Section 313, EPA 33/50 Pollution Prevention Program. The goal for facilities involved in compliance with Section 313 was to achieve a 33 percent reduction (from a 1993 baseline) in the release of 17 priority chemicals by 1997. On November 12, 1999, then-U.S. Secretary of Energy Bill Richardson established 14 pollution prevention and energy efficiency goals for DOE to build environmental accountability and stewardship into DOE’s decisionmaking process. Under these goals, DOE strives to minimize waste and maximize energy efficiency as measured by continuous cost-effective improvements in the use of materials and energy, using the years 2005 and 2010 as interim measurement points.

**“Schedule C—Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release” (10 CFR 30.72, Schedule C)**—This section of the regulations provides a list that is the basis for both the public and private sector to determine whether the radiological materials they handle must have an emergency response plan for unscheduled releases and is one of the threshold criteria documents for DOE hazards assessments required by DOE Order 151.C, *Comprehensive Emergency Management System. The Federal Radiological Emergency Response Plan*, dated May 1, 1996, primarily discusses offsite Federal response in support of state and local governments with jurisdiction during a peacetime radiological emergency.

**Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, as amended (42 U.S.C. 5121)**—This act provides an orderly, continuing means of providing Federal Government assistance to state and local governments in managing their responsibilities to alleviate suffering and damage resulting from disasters. The President, in response to a state governor’s request, may declare an “emergency” or “major disaster” to provide Federal assistance under this act. The President, in Executive Order 12148, as amended, delegated all functions except those in Sections 301, 401, and 409 to the Director of the Federal Emergency Management Agency. The act provides for the appointment of a Federal coordinating officer who will operate in the designated area with a state coordinating officer for the purpose of coordinating state and local disaster assistance efforts with those of the Federal Government.

**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. The implementing regulations, administered by EPA unless delegated to the 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 with at least 15 service connections that are used by year-round residents or regularly serve at least 25 year-round residents. EPA regulations implementing the Safe Drinking Water Act are found in 40 CFR Parts 141 through 149. For

radioactive material, the regulations specify that the average annual concentration of beta particles and photon energy from 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. 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.

**Solid Waste Disposal Act of 1965, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments of 1984**

**(42 U.S.C. 6901 et seq.)**—This act, as amended, governs the transportation, treatment, storage, and disposal of hazardous and nonhazardous wastes. Under RCRA, which amended the Solid Waste Disposal Act of 1965, EPA defines and identifies hazardous waste; establishes standards for its transportation, treatment, storage, and disposal; and requires permits for persons engaged in hazardous waste activities. Section 3006 of RCRA (42 U.S.C. 6926) allows states to establish and administer these permit programs with EPA approval.

The EPA regulations implementing RCRA are found in 40 CFR Parts 260 through 283. The New Mexico Environment Department is authorized to administer the RCRA program in New Mexico and issued the RCRA operating permit. Regulations imposed on a generator or on a treatment, storage, or disposal facility vary according to the type and quantity of hazardous waste generated, treated, stored, or disposed of and the methods of treatment, storage, and disposal.

**Toxic Substances Control Act of 1976 (15 U.S.C. 2601 et seq.)**—This act provides EPA with the authority to require testing of chemical substances entering the environment and to regulate them as necessary. The law complements and expands existing toxic substance laws, such as Section 112 of the Clean Air Act and Section 307 of the Clean Water Act. This act requires compliance with the inventory reporting and chemical control provisions of the legislation to protect the public from risks of exposure to chemicals.

This act also imposes strict limitations on the use and disposal of PCBs, chlorofluorocarbons, asbestos, dioxins, certain metal-working fluids, and hexavalent chromium. EPA issued the disposal authorization documents for management of its PCB waste disposal facility in Technical Area 54.

**Waste Isolation Pilot Plant Land Withdrawal Act (Public Law 102-579) and Waste Isolation Pilot Plant Land Withdrawal Act Amendments (Public Law 104-201)**—The Waste Isolation Pilot Plant Land Withdrawal Act withdrew land from the public domain for the purpose of creating and operating the Waste Isolation Pilot Plant (WIPP), the geologic repository in New Mexico designated as the national disposal site for defense transuranic waste. The act also defined the characteristics and amount of waste that can be disposed of at the facility. Amendments to the act exempt waste to be disposed of at WIPP from the RCRA land disposal restrictions. Prior to sending any transuranic waste from LANL to WIPP, DOE would have to determine whether the waste meets all statutory and regulatory requirements for disposal at WIPP.

## 5.4 Applicable Executive Orders

This section identifies environment-, health-, and safety-related Executive orders applicable to LANL operations. Activities under all alternatives would need to be conducted in compliance with applicable Executive orders. Chapter 3 describes the resources at LANL and Chapter 4 discusses the potential impacts on those resources under each alternative. Consultations with applicable agencies and federally recognized American Indian nations, as required by these Executive orders, are discussed in Section 5.7.

**Executive Order 11514, *Protection and Enhancement of Environmental Quality (March 5, 1970)*, as amended by Executive Orders 11541 (July 1, 1970) and 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 Part 1021) and DOE Order 451.1B, *National Environmental Policy Act Compliance Program*, for compliance with this Executive order.

**Executive Order 11593, *Protection and Enhancement of the Cultural Environment (May 13, 1971)***—This Executive order directs Federal agencies to locate, inventory, and nominate properties under their jurisdiction or control to the National Register of Historic Places if they qualify. This process requires DOE to provide the Advisory Council on Historic Preservation an opportunity to comment on the possible impacts of proposed activities on any potentially eligible or listed resources.

**Executive Order 11990, *Protection of Wetlands (May 24, 1977)***—This Executive order (implemented by DOE in 10 CFR Part 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 opportunities for early public review of any plans or proposals for new construction in wetlands.

**Executive Order 11988, *Floodplain Management (May 24, 1977)***—This Executive order (implemented by DOE in 10 CFR Part 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 are avoided to the extent practicable.

**Executive Order 12088, *Federal Compliance with Pollution Control Standards (October 13, 1978)*, as amended by Executive Order 12580, *Superfund Implementation (January 23, 1987)***—This Executive 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 12148, *Federal Emergency Management (July 20, 1979)*, as amended by Executive Order 12919, *National Defense Industrial Resources Preparedness, the Homeland Security Act of 2002 (Public Law 107-296)*, and Title 3 of U.S.C. Section 301**—This Executive order transfers functions and responsibilities associated with Federal emergency management to the director of the Federal Emergency Management Agency. This order assigns the director the responsibility to establish Federal policies for, and to coordinate all civil defense and civil emergency planning, management, mitigation, and assistance functions of, Executive branch agencies. The amendment replaces the name “Federal Emergency Management Agency” with “Department of Homeland Security” wherever it appears.

**Executive Order 12656, *Assignment of Emergency Preparedness Responsibilities***

**(November 18, 1988)**—This Executive order assigns emergency preparedness responsibilities to Federal departments and agencies.

**Executive Order 12699, *Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction***

**(January 5, 1990)**—This Executive order requires Federal agencies to do the following in a cost-effective manner: (1) reduce risks to occupants of buildings owned, leased, or purchased by the Federal Government or 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. 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.

**Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations***

**(February 11, 1994)**—This Executive order requires each Federal agency to identify and address the disproportionately high and adverse human health or 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 into the NEPA process. This guidance, published in 1997, is 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 conducted an analysis to determine whether implementing any of the proposed alternatives would result in disproportionately high or adverse impacts on minority and low-income populations. The results of this analysis are discussed in the environmental justice sections of Chapter 4 of this *CMRR-NF SEIS* for each of the alternatives under consideration.

**Executive Order 12938, *Proliferation of Weapons of Mass Destruction***

**(November 14, 1994)**—This Executive order states that the proliferation of nuclear, biological, and chemical weapons (“weapons of mass destruction”) and the means of delivering such weapons constitute an unusual and extraordinary threat to the national security, foreign policy, and economy of the United States and that a national emergency would be declared to deal with that threat.

**Executive Order 13007, *Indian Sacred Sites***

**(May 24, 1996)**—This Executive order directs Federal agencies 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 to the extent practicable and when consistent with essential agency functions. Where appropriate, agencies are to maintain the confidentiality of sacred sites.

**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 Executive order requires each Federal agency to give high priority to identifying and assessing 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 or safety risks.

**Executive Order 13112, *Invasive Species*** **(February 3, 1999)**—This Executive order requires Federal agencies to prevent the introduction of invasive species; to provide for their control; and to minimize their economic, ecological, and human health impacts.

**Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 6, 2000)**—This Executive order supplements the Executive Memorandum (dated April 29, 1994) entitled, “Government-to-Government Relations with Tribal Governments,” and states that each Executive branch 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 branch department and agency shall assess the impact of Federal Government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during the development of such plans, projects, programs, and activities.

**Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds* (January 10, 2001)**—This Executive order directs departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act. Specifically, this order directs Federal agencies whose direct activities will likely result in the take of migratory birds to develop and implement a Memorandum of Understanding with USFWS to promote the conservation of bird populations.

**Executive Order 13195, *Trails for America in the 21st Century* (January 18, 2001)**—This Executive 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 Executive 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.

**Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (January 24, 2007)**—This Executive 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.

**Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (October 5, 2009)**—The goals of this Executive order are to expand upon the energy reduction and environmental performance requirements of Executive Order 13423. Executive Order 13514 sets numerous Federal energy requirements in several areas, including accountability and transparency, strategic sustainability performance planning, greenhouse gas management, sustainable buildings and communities, water efficiency, electronic products and services, fleet and transportation management, and pollution prevention and waste reduction. Activities under all of the alternatives would need to be conducted to comply with this order.

## 5.5 Applicable U.S. Department of Energy Directives and Regulations

The Atomic Energy Act authorizes DOE to establish standards to protect health and/or minimize the dangers to life or property from 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 DOE facilities.

DOE regulations are found in Title 10 of the CFR. These regulations address such areas as energy conservation, administrative requirements and procedures, nuclear safety, and classified information. For the purposes of this EIS, relevant regulations include “Procedural Rules for DOE Nuclear Activities” (10 CFR Part 820), “Nuclear Safety Management” (10 CFR Part 830), “Occupational Radiation Protection” (10 CFR Part 835), “National Environmental Policy Act Implementing Procedures” (10 CFR Part 1021), and “Compliance with Floodplain and Wetland Environmental Review Requirements” (10 CFR Part 1022).

The Atomic Energy Act authorizes DOE to establish standards to protect health and minimize the dangers to life or property from activities under DOE’s jurisdiction. Through a series of DOE directives and regulations, an extensive system of standards and requirements has been established to ensure safe operation of DOE facilities. A number of DOE directives have been issued in support of environmental, safety, and health programs. Many of these were revised and reorganized to reduce duplication and eliminate obsolete provisions. The new DOE Directives System is organized by series, with each directive identified by three digits. Directives can include policies, orders, notices, manuals, and guides.

Existing DOE directives (identified by four digits) are expected to be revised and converted to the new DOE numbering system. All current directives are in effect without regard to the expiration date. The major DOE directives pertaining to the alternatives of this EIS are listed in **Table 5–2**.

**Table 5–2 Applicable U.S. Department of Energy Directives**

<i>DOE Directive Number</i>	<i>Title</i>	<i>Date</i>
<b>Leadership/Management Planning</b>		
P 141.1	Department of Energy Management of Cultural Resources	5-2-2001
P 141.2	Public Participation and Community Relations	5-2-2003
O 144.1	Department of Energy American Indian Tribal Government Interactions and Policy	1-16-2009 Chg 1: 11-6-2009
O 151.1C	Comprehensive Emergency Management System	11-2-2005
O 153.1	Departmental Radiological Emergency Response Assets	6-27-2007
<b>Information and Analysis</b>		
O 221.1A	Reporting Fraud Waste and Abuse to the Office of Inspector General	4-19-2008
O 221.2A	Cooperation with the Office of Inspector General	2-25-2008
O 221.3A	Establishment of Management Decisions on Office of Inspector General Reports	4-19-2008
O 231.1A	Environment Safety and Health Reporting	8-9-2003 Chg 1: 6-3-2004
M 231.1-1A	Environment Safety and Health Reporting Manual	3-19-2004 Chg 2: 6-3-2004
M 231.1-2	Occurrence Reporting and Processing of Operations Information	8-19-2003
<b>Work Processes</b>		
O 410.1	Central Technical Authority Responsibilities Regarding Nuclear Safety Requirements	8-28-2007
O 410.2	Management of Nuclear Materials	8-17-2009

<i>DOE Directive Number</i>	<i>Title</i>	<i>Date</i>
P 411.1	Safety Management Functions Responsibilities and Authorities Policy	1-28-1997
M 411.1-1C	Safety Management Functions Responsibilities and Authorities Manual	12-31-2003
P 413.1	Program and Project Management Policy for the Planning, Programming, Budgeting, and Acquisition of Capital Assets	6-10-2000 Chg 1: 7-14-2004
O 413.1B	Internal Control Program	10-28-08
P 413.2	Value Engineering	1-7-2004
O 413.2B	Laboratory Directed Research and Development	4-19-2006
O 413.3B	Program and Project Management for the Acquisition of Capital Assets	11-29-2011
O 414.1C	Quality Assurance	6-17-2005 Chg 1: 7-7-2005
P 420.1	Nuclear Safety Policy	2-8-2011
O 420.1B	Facility Safety	12-22-2005 Chg 1: 4-19-10
O 422.1	Conduct of Operations	6-29-2010
O 425.1D	Verification of Readiness to Start Up or Restart Nuclear Facilities	4-16-2010
P 426.1	Federal Technical Capability Policy for Defense Nuclear Facilities	12-10-1998
O 426.1	Federal Technical Capability	11-19-2009
O 426.2	Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities	4-21-2010
P 430.1	Land and Facility Use Planning	12-21-1994
O 430.1B	Real Property Asset Management	9-24-2003 Chg 1: 2-8-2008
O 430.2B	Departmental Energy, Renewable Energy and Transportation Management	2-27-2008
O 433.1B	Maintenance Management Program for DOE Nuclear Facilities	4-21-2010
P 434.1	Conduct and Approval of Select Agent and Toxin Work at Department of Energy Sites	6-5-2009
O 435.1	Radioactive Waste Management	7-9-1999 Chg 1: 8-28-2001 Certified 1-9-2007
M 435.1-1	Radioactive Waste Management Manual	7-9-1999 Chg 1: 6-19-2001 Certified 1-9-2007
O 440.1B	Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees	5-17-2007 Chg 1: 8-21-2007
M 440.1-1A	DOE Explosives Safety Manual	1-9-2006
P 441.1	DOE Radiological Health and Safety Policy	4-26-1996
M 441.1-1	Nuclear Material Packaging Manual	3-7-2008
P 443.1A	Protection of Human Subjects	12-20-2007
O 443.1A	Protection of Human Subjects	12-20-2007
O 450.1A	Environmental Protection Program	6-4-2008
P 450.2A	Identifying, Implementing and Complying with Environment, Safety and Health Requirements	5-15-1996
P 450.3	Authorizing Use of the Necessary and Sufficient Process for Standards-Based Environment, Safety and Health Management	1-25-1996
M 450.3-1	DOE Closure Process for Necessary and Sufficient Sets of Standards	3-1-1996
P 450.4	Safety Management System Policy	11-15-1996
M 450.4-1	Integrated Safety Management System Manual	11-1-2006 Chg 1: 11-16-2006
P 450.7	Environment Safety and Health (ESH) Goals	8-2-2004

<b>DOE Directive Number</b>	<b>Title</b>	<b>Date</b>
O 451.1B	National Environmental Policy Act Compliance Program	10-26-2000 Chg 1: 9-28-2001 Chg 2: 6-25-2010
O 452.1D	Nuclear Explosive and Weapon Surety Program	4-14-2009
O 452.2D	Nuclear Explosive Safety	4-14-2009
M 452.2-1A	Nuclear Explosive Safety Manual	4-14-2009
M 452.2-2	Nuclear Explosive Safety Evaluation Processes	4-14-2009
O 452.3	Management of the Department of Energy Nuclear Weapons Complex	6-8-2005
O 452.4B	Security and Use Control of Nuclear Explosives and Nuclear Weapons	1-22-2010
O 452.6A	Nuclear Weapon Surety Interface with the Department of Defense	4-14-2009
O 452.7	Protection of Use Control Vulnerabilities and Designs	5-14-2010
P 454.1	Use of Institutional Controls	4-9-2003
P 455.1	Use of Risk-Based End States	7-15-2003
P 456.1	Secretarial Policy Statement on Nanoscale Safety	9-15-2005 Certified 9-23-2010
N 456.1	The Safe Handling of Unbound Engineered Nanoparticles	1-15-2009
O 457.1	Nuclear Counterterrorism	2-7-2006
M 457.1-1	Control of Improvised Nuclear Device Information	8-10-2006
O 460.1C	Packaging and Transportation Safety	5-14-2010
O 460.2A	Departmental Materials Transportation and Packaging Management	12-22-2004
M 460.2-1A	Radioactive Material Transportation Practices Manual	6-4-2008
O 461.1B	Packaging and Transportation for Offsite Shipment of Materials of National Security Interest	12-20-2010
O 461.2	Onsite Packaging and Transfer or Transportation of Materials of National Security Interest	4-26-2004
O 462.1	Import and Export of Category 1 and 2 Radioactive Sources and Aggregated Quantities	11-10-2008
P 470.1A	Safeguards and Security Program	12-29-2010
O 470.2B	Independent Oversight and Performance Assurance Program	10-31-2002
O 470.3B	Graded Security Protection (GSP) Policy	8-12-2008
O 470.4A	Safeguards and Security Program	5-25-2007
M 470.4-1	Safeguards and Security Program Planning and Management	8-26-2005 Chg 1: 3-7-2006 Chg 2: 10-20-2010
M 470.4-2A	Physical Protection	7-23-2009
M 470.4-3A	Contractor Protective Force	11-5-2008
M 470.4-4A	Information Security Manual	1-16-2009 Chg 1: 10-12-2010
M 470.4-5	Personnel Security	8-26-2005
M 470.4-6	Nuclear Material Control and Accountability	8-26-2005 Chg 1: 8-14-2006
M 470.4-8	Federal Protective Force	7-15-2009
N 470.5	Implementation of Section 1072 of the National Defense Authorization Act for Fiscal Year 2008	8-12-2009
O 471.B	Identification and Protection of Unclassified Controlled Nuclear Information	3-1-2010
M 471.2-3B	Special Access Program Policies, Responsibilities, and Procedure	10-29-2007
O 471.3	Identifying and Protecting Official Use Only Information	4-9-2003 Chg. 1: 1-13-2011
M 471.3-1	Manual for Identifying and Protecting Official Use Only Information	4-9-2003 Chg. 1: 1-13-2011
O 475.2A	Identifying Classified Information	2-1-2011

<i>DOE Directive Number</i>	<i>Title</i>	<i>Date</i>
<b>Environmental Quality and Impact</b>		
O 458.1	Radiation Protection of the Public and the Environment	2-11-2011
O 5480.30	Nuclear Reactor Safety Design Criteria	1-19-2003 Chg 1: 3-14-2001

M = Manual, N = Notice, O = Order, P = Policy.

## 5.6 Applicable State and Local Laws, Regulations, and Agreements

Certain environmental requirements, including some discussed in Section 5.3, have been delegated to state authorities for implementation and enforcement. It is DOE policy to conduct its operations in an environmentally safe manner that complies with all applicable laws, regulations, and standards, including state laws and regulations. A list of applicable state and local laws, regulations, and agreements is provided in **Table 5–3**.

**Table 5–3 Applicable State and Local Regulations, and Agreements**

<i>Laws, Regulations, Agreements</i>	<i>Citation</i>	<i>Requirements</i>
Endangered Plant Species	<i>New Mexico Administrative Code</i> (NMAC) Title 19, Chapter 21, “Endangered Plants” (revised November 30, 2006).	Establishes plant species list and rules for collection.
Environmental Oversight and Monitoring Agreement	Agreement in Principle Between DOE and the State of New Mexico, November 2000.	Provides DOE support for state activities in environmental oversight, monitoring, access, and emergency response.
Federal Facility Compliance Order	October 1995 (issued to both DOE and LANL).	Order used by the New Mexico Environment Department to enforce the Federal Facility Compliance Act. It requires compliance with the approved LANL Site Treatment Plan, which documents the development and use of treatment capacities and technologies, as well as use of offsite facilities for treating mixed radioactive waste stored at LANL.
Los Alamos County Noise Restrictions	<i>Los Alamos County Code</i> , Chapter 8.28.	Imposes noise restrictions and makes provisions for exceedances.
Environmental Improvement Act	<i>New Mexico Statutes Annotated</i> (NMSA) 1978, Sections 74-1-1 through 74-1-15; NMAC Sections 20.5.1 through 20.5.17, August 15, 2003.  The New Mexico Environment Department recently changed its regulations for storage tanks, combining the regulations for aboveground and underground storage tanks into the Petroleum Storage Tank regulations. Petroleum Storage Tank regulations are found in NMAC Sections 20.5.1 through 20.5.17; filed for publication in the <i>New Mexico Register</i> on July 16, 2003; effective August 15, 2003.	Aboveground tank regulations were modified to include requirements for the registration, installation, modification, repair, and closure or removal of aboveground storage tanks, as well as release detection, record-keeping, and financial responsibility in the state of New Mexico.

<b><i>Laws, Regulations, Agreements</i></b>	<b><i>Citation</i></b>	<b><i>Requirements</i></b>
New Mexico Air Quality Control Act	NMSA Chapter 74, "Environmental Improvement," Article 2, "Air Pollution" (revised October 31, 2002), and implementing regulations at NMAC Title 20, "Environmental Protection," Chapter 2, "Air Quality" (revised October 31, 2002).	Establishes air quality standards and requires a permit prior to construction or modification of an air contaminant source. Also requires an operating permit for major producers of air pollutants and imposes emission standards for hazardous air pollutants.
New Mexico Cultural Properties Act	NMSA Chapter 18, "Libraries and Museums," Article 6, "Cultural Properties."	Establishes the State Historic Preservation Office and requirements to prepare an archaeological and historic survey and consult with the State Historic Preservation Office.
New Mexico Groundwater Protection Act	NMSA Chapter 74, Article 6B, "Groundwater Protection."	Establishes state standards for protection of groundwater from leaking underground storage tanks.
New Mexico Hazardous Chemicals Information Act	NMSA Chapter 74, Article 4E-1, "Hazardous Chemicals Information."	Implements the hazardous chemical information and toxic release reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986 (SARA Title III) for covered facilities.
New Mexico Hazardous Waste Act	NMSA Chapter 74, Article 4, "Hazardous Waste," and implementing regulations found in NMAC Title 20, "Environmental Protection," Chapter 4, "Hazardous Waste" (revised June 14, 2000).	Establishes permit requirements for construction, operation, modification, and closure of a hazardous waste management facility and establishes state standards for cleanup of releases from leaking underground storage tanks.
New Mexico Endangered Plant Species Act	NMSA Chapter 75, "Miscellaneous Natural Resource Matters," Article 6, "Endangered Plants."	Requires coordination with the State of New Mexico.
New Mexico Night Sky Protection Act	NMSA Chapter 74, Article 12, "Night Sky Protection": 74-12-1 to 74-12-10 (House Bill 39/A, March 1, 1999).	Regulates outdoor night lighting fixtures to preserve and enhance the State of New Mexico's dark sky while promoting safety, conserving energy, and preserving the environment for astronomy.
New Mexico Radiation Protection Act	NMSA Chapter 74, Article 3, "Radiation Control" and implementing regulations found in NMAC Title 20, Chapter 3, "Radiation Protection" (revised April 15, 2004) "Environmental Protection."	Establishes state requirements for worker protection.
New Mexico Raptor Protection Act	NMSA Chapter 17, Article 2-14.	Makes it unlawful to take, attempt to take, possess, trap, ensnare, injure, maim, or destroy any of the species of hawks, owls, and vultures.
New Mexico Solid Waste Act	NMSA Chapter 74, Article 9, Solid Waste Act, and implementing regulations found in NMAC Title 20, "Environmental Protection," Chapter 9, "Solid Waste" (revised November 27, 2001).	Requires permit prior to construction or modification of a solid waste disposal facility.
New Mexico Water Quality Act	NMSA Chapter 74, Article 6, "Water Quality," and implementing regulations found in NMAC Title 20, "Environmental Protection," Chapter 6, "Water Quality" (revised February 16, 2006).	Establishes water quality standards and requires a permit prior to the construction or modification of a water discharge source.
New Mexico Wildlife Conservation Act	NMSA Chapter 17, "Game and Fish," Article 2, "Hunting and Fishing Regulations," Part 3, Wildlife Conservation Act.	Requires a permit and coordination if a project may disturb habitat or otherwise affect threatened or endangered species.

<i>Laws, Regulations, Agreements</i>	<i>Citation</i>	<i>Requirements</i>
Compliance Order on Consent	March 1, 2005 (entered into by the State of New Mexico, DOE, and the University of California) (NMED 2005).	Requires site investigations of known or potentially contaminated sites at LANL and cleanup in accordance with a specified process and schedule.
Pueblo Accords	DOE 2006 Restatement of Accords with the Pueblos of Cochiti, Jemez, Santa Clara, and San Ildefonso.	Set forth the specifications for maintaining a government-to-government relationship between DOE and each of the four pueblos closest to LANL.
Threatened and Endangered Species of New Mexico	NMAC Title 19, “Natural Resources and Wildlife,” Chapter 33, “Threatened and Endangered Species,” Section 19.33.6.8 (revised December 29, 2006).	Establishes the list of threatened and endangered species.

## 5.7 Consultations with Agencies and Federally Recognized American Indian Nations

Certain laws, such as the Endangered Species Act, the Fish and Wildlife Coordination Act, and the 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 nations. These 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 resources, cultural resources, and American Indian rights.

As part of its government-to-government interactions, twice yearly executive meetings are held among the Los Alamos Site Office manager, the LANL director, and the respective Accord Pueblo governors (or their representatives) of the four Accord Pueblos (Cochiti, San Ildefonso, Jemez, and Santa Clara). In addition, the Los Alamos Site Office manager meets monthly with each governor of the two pueblos closest to LANL (San Ildefonso and Santa Clara) and with the other Accord Pueblo governors on a less-frequent basis. In both the executive meetings and the monthly meetings, the Los Alamos Site Office manager discusses current and planned activities taking place at LANL and seeks comment on these activities from the governors.

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 concern the sovereign rights of tribal nations regarding the potential for disturbance of ancestral American Indian sites and the traditional practices of American Indians.

With respect to biotic resources, NNSA has determined that the proposed action would be similar to those described as acceptable in the *Los Alamos National Laboratory Threatened and Endangered Species Habitat Management Plan* (LANL 2000a); however, informal consultation by the National Nuclear Security Administration (NNSA) is necessary to comply with the provisions of 50 CFR Part 402 (Section 7), “Interagency Cooperation – Endangered Species Act of 1973, as amended.” NNSA initiated consultation with USFWS, as the Federal agency with regulatory responsibility for the Endangered Species Act, in April 2003 regarding the CMRR Facility (that is, the CMRR Nuclear Facility and the Radiological Laboratory/Utility/Office Building). Subsequent consultations occurred in February 2005, January 2006, August 2007, and June 2009. Consultations resulted in concurrence by USFWS with NNSA’s determination that construction and operation of the CMRR Facility in Technical Area 55, including use of other areas for construction support activities, may affect, but is not likely to adversely affect, either individuals of threatened or endangered species currently listed by USFWS or their critical habitat at LANL (USFWS 2003, 2005, 2006, 2007, 2009). Informal consultation has been reopened and NNSA has

determined that additional activities and land use may affect but is not likely to adversely affect the Mexican spotted owl. Consultation is expected to be completed by June 2011.

Prior to any ground-disturbing activities, the LANL staff would further evaluate whether any of the subject activities would affect eligible or potentially eligible cultural resources. The *LANL Cultural Resources Management Plan*, as implemented at LANL, serves to identify and protect historic and cultural resources, as well as provide a framework for consultation with and visitation of resources by local tribes and pueblos. Should any adverse impacts be identified as a result of activities evaluated in this *CMRR-NF SEIS*, DOE would work with the State Historic Preservation Office, as well as any of the affected pueblos, to resolve any adverse effects.