

CHAPTER 7

Applicable Laws, Regulations, and Other Requirements

Environmental compliance requirements, including statutes, regulations, and orders, which are applicable to the proposed action and alternatives, will be presented in this chapter.

7.1 INTRODUCTION

As part of the *National Environmental Policy Act* (NEPA) process, the Sandia National Laboratories/New Mexico (SNL/NM) Site-Wide Environmental Impact Statement (SWEIS) should consider, in determining the significance of impacts, if actions described under the SWEIS alternatives threaten to violate any Federal, state, or local law or requirement and must list all required Federal permits, licenses, or other entitlements (40 Code of Federal Regulations [CFR] §1508.27(b)(10) and §1502.25, respectively). This chapter summarizes assessment of the major existing environmental requirements, agreements, and permits that relate to continuing operations at SNL/NM.

In addition to this introduction, Chapter 7 is divided into two sections. Section 7.2 describes general environmental laws, regulations, and other requirements under which the U.S. Department of Energy (DOE) must proceed in preparing the SWEIS. Section 7.3 describes specific environmental requirements for each resource area.

7.2 GENERAL ENVIRONMENT, HEALTH, SAFETY LAWS, REGULATIONS, AND OTHER REQUIREMENTS

7.2.1 Atomic Energy Act of 1954 (42 U.S.C. §2011)

The *Atomic Energy Act* (AEA) of 1954 makes the Federal government responsible for regulatory control of the production, possession, and use of three types of radioactive material: source, special nuclear, and byproduct. Regulations promulgated by the U.S. Nuclear Regulatory Commission (NRC) under the AEA establish standards for the management of these radioactive materials, licensing of nuclear facilities, and protection of the public and property against radiation. The AEA authorizes the DOE to set radiation protection standards for itself and its contractors for DOE nuclear facilities and provides exclusions from

NRC licensing for defense production facilities. The NRC regulates private and commercial nuclear activities, but currently has no regulating authority at most DOE facilities. In December 1996, the DOE announced that it would begin a process of transferring oversight of nuclear safety to the NRC for all DOE nuclear facilities (DOE 1996a). The transfer, which requires legislative action, is to be phased-in over a 10-year period.

The AEA authorizes the DOE to establish standards that protect health and minimize danger to life or property from activities under the DOE's jurisdiction. The mechanisms through which DOE manages its facilities are the promulgation of regulations and the issuance of DOE orders and associated standards and guidance. Requirements for the protection of environment, safety, and health (ES&H) are implemented at DOE sites primarily through contractual mechanisms, which establish the applicable DOE requirements for management and operating contractors.

7.2.2 National Environmental Policy Act of 1969, as Amended (42 U.S.C. §4321)

NEPA requires Federal agencies to evaluate the environmental impacts of proposed actions on the quality of the human environment and to document this evaluation with a succinct statement. The act also created the Council on Environmental Quality (CEQ), which oversees the NEPA process. NEPA requires an agency to consider the environmental impacts of an action, prior to taking action that would preclude any reasonable alternative actions. It also provides for public input into the decision-making process.

7.2.3 Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508)

The implementing regulations for NEPA were developed by the CEQ. These regulations seek to

integrate the NEPA process into the early planning phase of a project to insure appropriate consideration of NEPA policies and to eliminate delay;

emphasize cooperative consultation among agencies before the environmental document is prepared;

identify at an early stage the significant environmental issues deserving of study and de-emphasize insignificant issues, thus, narrowing the scope of the environmental document;

provide a mechanism for putting appropriate time limits on the environmental documentation process; and

provide for public participation in the NEPA process.

7.2.4 National Environmental Policy Act Implementing Procedures (10 CFR Part 1021)

The DOE established its NEPA implementing procedures to meet the requirements of Section 102(2) of NEPA, CEQ implementing regulations, and Executive Order (EO) 11514, *Protection and Enhancement of Environmental Quality* (35 Federal Register [FR] 4247). The procedures formalize the DOE's policy to follow the letter and spirit of NEPA, comply fully with the CEQ regulations, and apply the NEPA review process early in the planning stages for DOE proposals. The SWEIS is being prepared under 10 CFR §1021.330, programmatic (including site-wide) NEPA documents, requiring preparation of site-wide environmental documentation for certain of its large, multiple-facility sites.

7.2.5 Protection and Enhancement of Environmental Quality (EO 11514)

Under EO 11514, Federal agencies are required to monitor and control their activities continually to protect and enhance the quality of the environment (35 FR 4247). It directs agencies to develop programs and measures to protect and enhance environmental quality and further directs heads of agencies to consult with appropriate Federal, state, and local agencies in carrying out their activities as they affect the quality of the environment. EO 11514 contains requirements to ensure that Federal agencies include the public in the decision-making process. This order was in part responsible for the development of the DOE

implementing procedures for NEPA and DOE Order 451.1A, *National Environmental Policy Act Compliance Program*.

7.2.6 Federal Compliance with Pollution Control Standards (EO 12088)

Under EO 12088, the head of each executive agency is responsible for ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under their control (43 FR 47707). Specifically, they must ensure compliance with applicable pollution control standards, including those established by, but not limited to, the *Clean Air Act* (CAA), *Noise Control Act* (NCA), *Clean Water Act* (CWA), *Safe Drinking Water Act* (SDWA), *Toxic Substances Control Act* (TSCA), and *Resource Conservation and Recovery Act* (RCRA).

7.2.7 DOE O 451.1A, National Environmental Policy Act Compliance Program

This order establishes DOE internal program requirements and responsibilities for implementing NEPA, CEQ implementing regulations, and DOE NEPA implementing procedures.

7.2.8 DOE 5400.1, General Environmental Protection Program

This order establishes the environmental protection program requirements, authorities, and responsibilities for DOE operations for ensuring compliance with applicable Federal, state, and local environmental protection laws and regulations, EOs, and internal DOE policies. This order also provides for environmental protection standards, notification and reporting requirements for discharges and unplanned releases, environmental protection and program plans, and environmental monitoring and surveillance requirements. It establishes formal recognition that DOE's environmental management activities are extensively, but not entirely, regulated by the U.S. Environmental Protection Agency (EPA), state, and local environmental agencies, and it provides requirements for satisfying these externally imposed regulations. In addition, it establishes requirements for those environmental protection programs that are not externally regulated.

7.2.9 New Mexico Environmental Oversight and Monitoring Agreement

This agreement, known as the Agreement in Principle, between the DOE and the state of New Mexico, provides for the DOE's technical and financial support of state activities in environmental oversight, monitoring, access, and emergency response. The agreement, which was initially signed in October 1990, covers SNL/NM, Los Alamos National Laboratory (LANL), the Waste Isolation Pilot Plant (WIPP), and the Lovelace Respiratory Research Institute. Under the agreement, the New Mexico Environment Department (NMED) is the lead state agency and provides independent environmental monitoring and emergency planning review services related to all DOE activities at these sites in New Mexico. On October 2, 1995, the DOE and NMED extended the Agreement in Principle for an additional five years.

7.3 ENVIRONMENT, HEALTH, AND SAFETY LAWS, REGULATIONS, AND OTHER REQUIREMENTS FOR EACH RESOURCE AREA

Because SNL/NM was constructed and began operations in the 1940s, before the advent of current environmental requirements, operational nuclear safety and national security were the dominant factors in the early design and operation of facilities. With the enactment of environmental laws and regulations from the 1960s to the present, resources and philosophies have changed to place greater emphasis on achieving compliance with all applicable environmental requirements. Due to its long history, SNL/NM has had difficulty in achieving compliance with some regulatory requirements and has a legacy from past management practices of environmental cleanup requirements for waste, spills, and releases. All environmental protection, legacy environmental cleanup, and operational compliance activities at SNL/NM are covered by laws, regulations, permits, and DOE orders. Several compliance orders and agreements are also in effect with regulatory agencies to bring SNL/NM into full compliance with some regulatory requirements. In general, the DOE and SNL/NM must now comply with applicable Federal and state requirements to the same extent as any other entity. Noncompliance with these requirements can lead to enforcement actions.

Applicable environmental laws, regulations, and other requirements have been identified for each of the resources evaluated in this SWEIS. These are discussed below by resource.

7.3.1 Land Use and Visual Resources

7.3.1.1 National Forest Management Act of 1976, as Amended (16 U.S.C. §472a)

This act reorganized, expanded, and otherwise amended the *Forest and Rangeland Renewable Resources Planning Act of 1974*, which called for the management of renewable resources on national forest lands. The act requires the Secretary of Agriculture to assess forest lands; develop a management program based on multiple-use, sustained-yield principles; and implement a resource management plan for each unit of the national forest system. It is the primary statute governing the administration of national forests.

7.3.1.2 Federal Land Policy and Management Act of 1976 (43 U.S.C. §§1701-1784)

This act governs the use of Federal lands that may be overseen by several agencies and establishes procedures for land withdrawals and rights-of-way.

7.3.1.3 Public Land Order 995 (19 FR 5443)

This order revokes previous land withdrawal orders and withdraws from public use, approximately 21,163 acres of the Cibola National Forest for use by the U.S. Department of Defense (DoD) in connection with Kirtland Air Force Base (KAFB).

7.3.1.4 Public Land Order 4569 (34 FR 1139)

This order withdraws from public use, 4,594 acres of the Cibola National Forest for use by the DOE for research and development.

7.3.1.5 DOE P 430.1, DOE Land Use and Facility Policy

This policy governs DOE's management of its land and facilities as valuable national resources, based on the principles of ecosystem management and sustainable development.

7.3.2 Infrastructure

7.3.2.1 Hazardous Materials (29 CFR Part 1910, Subpart H)

This regulation provides the health and safety requirements for work with and around hazardous materials. This subpart covers work involving compressed gas cylinders, hazardous compounds and elements (such as acetylene, explosive agents, and hydrogen), and mechanical processes involving dip tanks and spray finish units. It includes Subpart 1910.120, *Hazardous Waste Operations*, which is the main health and safety regulation for work in hazardous waste operations.

7.3.2.2 Hazardous Waste Operations and Emergency Response (29 CFR §1910.120)

This regulation specifies requirements for conducting waste operations and response activities. These requirements include both activity and training requirements for personnel.

7.3.2.3 Materials Handling and Storage (29 CFR Part 1910, Subpart N)

This regulation specifies requirements for material handling equipment such as cranes, derricks, helicopters, slings, and powered industrial trucks. This subpart covers the minimum distance a worker must be from a single rim and multi-piece rim wheel while servicing the tire and the maintenance and use of forklifts, cranes, and derricks.

7.3.2.4 Toxic and Hazardous Substances (29 CFR Part 1910, Subpart Z)

This regulation provides requirements for performing air monitoring and medical monitoring for a variety of hazardous chemicals and materials such as asbestos, methyl chloromethyl ether, vinyl chloride, benzene, bloodborne pathogens, and cotton dust. It also establishes acceptable levels for toxic and hazardous substances in the blood of workers, as well as proper collection and measuring techniques.

7.3.2.5 DOE 5480.1B, Environmental, Safety, and Health Program for Department of Energy Operations

This order applies to ES&H programs at all government-owned, contractor-operated facilities including the occupational safety and health programs for DOE

contractor employees at facilities where the contracts include the occupational safety and health contract clause specified in 48 CFR, *Federal Acquisition Regulations*. This order also applies to environmental protection programs and programs for protection against accidental loss or damage to property as provided by law or contract and as implemented by the appropriate contracting officer.

7.3.2.6 DOE 5480.4, Environmental Protection, Safety and Health Protection Standards

This order specifies the requirements for the application of mandatory ES&H standards applicable to all DOE and DOE contractor operations, provides a listing of reference ES&H standards, identifies the sources of the mandatory and reference ES&H standards, and specifies several mandatory and reference standards applicable to nuclear criticality protection for all DOE nuclear facilities. It also mandates that hazardous waste regulations set forth in 40 CFR Parts 260-265 be followed as a matter of policy.

7.3.2.7 DOE 5480.5, Safety of Nuclear Facilities

This order establishes nuclear facility safety program requirements. It requires that ES&H programs include administrative and procedural controls that delineate

clear lines of responsibility and methods for operation under normal and emergency conditions;

a system of configuration control that requires independent safety review and approval of all changes to components, equipment, procedures, and systems required for the facility's safety;

criticality safety program requirements for fissile material storage and handling facilities/operations;

decontamination and decommissioning requirements of DOE facilities; and

emergency plans to handle potential accidents.

7.3.3 Geology and Soils

Regulatory environmental protection statutes governing geology and soils are addressed under other resource areas in this chapter. They include the *Resource Conservation and Recovery Act* (RCRA) (42 U.S.C. §6901), the *Comprehensive Environmental Response Compensation and Liability Act* (CERCLA) (42 U.S.C. §6902), and the 1986 amendment to the CERCLA, the *Superfund Amendments and Reauthorization Act* (SARA) (42 U.S.C. §6902, as amended).

7.3.4 Water Resources and Hydrology

7.3.4.1 Clean Water Act of 1948, as Amended (33 U.S.C. §1251)

The goals of the CWA are to restore and maintain waters of the U.S. in order to protect human health and safety and to provide for the protection and propagation of fish, shellfish, and wildlife. The act authorizes regulations that establish limitations and permitting requirements for hazardous substances being discharged from point sources, dredge or fill operations at wetlands and other waters of the U.S., stormwater discharges from industrial runoff, and oil discharges. Key elements of the act include nationally applicable, technology-based effluent limitations set by the EPA for specific industry categories, and water quality standards set by states.

The EPA is the regulating authority for point source and stormwater discharge permits in New Mexico. Permits are issued and enforced by the EPA Region 6 in Dallas, Texas. New Mexico does not have a state point source discharge permit program. However, the NMED performs some compliance evaluation inspections and monitoring for the EPA through a water quality grant issued under Section 106 of the CWA. The U.S. Army Corps of Engineers administers the dredge or fill material permit program (Section 404) of the act.

The CWA contains provisions for the National Pollutant Discharge Elimination System (NPDES), a permitting program for the discharge of pollutants from any point source into waters of the U.S. Individual NPDES permits set parameters and maximum contaminant levels for specified pollutants at specific outfall sites. EPA Region 6 issued SNL/NM NPDES Storm Water Multi-Sector General Permit Number NMR05A181 on August 25, 1997.

To comply with the CWA, the city of Albuquerque issues wastewater permits under the *City of Albuquerque Sewer Use and Wastewater Control Ordinance* (Ordinance 21-1985). Under this ordinance, SNL/NM is subject to limitations on volumes and constituent concentrations for wastewater discharged to the sanitary sewer.

7.3.4.2 Safe Drinking Water Act of 1944, as Amended (42 U.S.C. §300f)

The SDWA sets national standards for contaminant levels in public drinking water systems, regulates the use of underground injection wells, and prescribes standards for groundwater aquifers that are a sole source of drinking water. Primary enforcement responsibility for

the act is by the states. The EPA has given the NMED authority to administer and enforce Federal drinking water regulations and standards in New Mexico. The act authorizes regulations that establish national drinking water standards for contaminants in public drinking water systems. The EPA maintains oversight responsibilities over the states, sets new contaminant standards as appropriate, and maintains separate enforcement responsibility for the Underground Injection Control Program.

The SDWA applies to Federal facilities that own or operate a public water system. A public water system is defined as a system for the provision of piped water for human consumption that has at least 15 service connections or regularly serves at least 25 individuals. KAFB provides drinking water to SNL/NM and other associate occupants of the base. KAFB is required to monitor drinking water quality for organic and inorganic compounds, radionuclides, metals, turbidity, and total coliforms.

7.3.4.3 National Drinking Water Regulations (40 CFR Parts 141-143)

These regulations establish primary (40 CFR Part 141) and secondary (40 CFR Part 143) drinking water standards; 40 CFR Part 141 also establishes regulations applicable to public water systems. Although the primary standards are Federally enforceable (40 CFR Part 142), the secondary standards are intended as guidelines for the states. The primary and secondary standards have been adopted by New Mexico. Along with inorganic and organic constituents, the primary standards also establish limits for radioactive releases to drinking water. The annual dose to the general public from radioactive releases to drinking water is limited to 4 mrem. The DOE also establishes this same level in DOE 5400.5, *Radiation Protection of the Public and the Environment*. The secondary standards relate to contaminants in drinking water that primarily affect aesthetic qualities related to public acceptance of drinking water.

7.3.4.4 Spill Control and Countermeasures Plan (40 CFR Part 112)

SNL/NM has a spill control and countermeasures plan, as required by 40 CFR Part 112. The 1990 *Oil Pollution Act* rewrote sections of the CWA. This plan requires that secondary containment be provided for all above-ground storage tanks. The plan also provides for spill control at oil storage sites at SNL/NM. This plan meets requirements of both EPA and NMED for control of spills to surface areas and below the ground surface.

7.3.4.5 Standards for Use or Disposal of Sewage Sludge (40 CFR Part 503)

The purpose of these standards is to establish numerical, management, and operational standards for the beneficial use or disposal of sewage sludge through land application or surface disposal. Under these regulations, SNL/NM is required to collect representative samples of sewage sludge to demonstrate that it is not a hazardous waste and that it meets the minimum Federal standards for pollutant concentrations.

7.3.4.6 DOE 5400.1, General Environmental Protection Program

This order requires SNL/NM to prepare a groundwater protection management program plan (GWPMPP) and to implement the program outlined by that plan. GWPMPP also fulfills the requirements of Chapter IV, Section 9, of the order, which requires development of a groundwater monitoring plan. The groundwater monitoring plan identifies all DOE requirements and regulations applicable to groundwater protection and includes strategies for sampling, analysis, and data management.

Chapter IV, Section 9c, of DOE 5400.1 requires that groundwater monitoring be determined by site-specific characteristics and, where appropriate, that groundwater monitoring programs be designed and implemented in accordance with RCRA regulations 40 CFR Part 264, Subpart F, or 40 CFR Part 265, Subpart F. These regulations also require that monitoring for radionuclides be in accordance with DOE 5400.5, *Radiation Protection of the Public and the Environment*.

7.3.4.7 New Mexico Standard for Interstate and Intrastate Streams (20 NMAC 6.1)

This regulation includes a set of general standards applicable to all surface water in the state (including ephemeral streams) and additional or more stringent standards for designated bodies of water. The general standards include criteria for stream bottom deposits; floating solids, oil, and grease; color; odor and taste of fish; plant nutrients; toxic substances; radioactivity; pathogens; temperature; turbidity; salinity; and dissolved gases. Water flowing in arroyos within KAFB is subject to these quality standards.

7.3.5 Biological and Ecological Resources

7.3.5.1 Endangered Species Act of 1973, as Amended (16 U.S.C. §1531)

The *Endangered Species Act* requires that Federal agencies ensure that any actions authorized, funded, or carried out by the agency are not likely to jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify critical habitat. The act is jointly administered by the U.S. Department of Commerce, National Marine Fisheries Service, and the U.S. Department of the Interior (DOI)/U.S. Fish and Wildlife Service (USFWS). Under the act, agencies undergo a process of informal and formal consultation, which may include preparation of a biological assessment, to determine if a threatened or endangered species would be affected by planned agency activities.

The DOE has consulted with the USFWS, U.S. Forest Service (USFS), Bureau of Indian Affairs (BIA), New Mexico Game and Fish Department (NMGFD), and New Mexico Forestry and Resources Conservation Division (Energy, Minerals, and Natural Resources Department) regarding concerns each agency may have about the impact of SNL/NM activities on protected animal and plant species.

7.3.5.2 Migratory Bird Treaty Act of 1918, as Amended (16 U.S.C. §703)

This act protects migratory birds by making it unlawful to pursue, take, attempt to take, capture, possess, or kill any migratory bird, or any part, nest, or egg of any such bird, unless and except as permitted by regulation. The act is intended to protect birds that have common migratory patterns within the U.S., Canada, Mexico, Japan, and Russia.

7.3.5.3 Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. §668)

This act makes it unlawful to capture, kill, destroy, molest, or disturb bald (American) and golden eagles, their nests, or their eggs anywhere in the U.S. A permit must be obtained from the DOI to relocate a nest that interferes with resource development or recovery operations.

7.3.5.4 National Forest Management Act of 1976 (16 U.S.C. §§1600-1614)

This act requires the Secretary of Agriculture to assess forest lands; develop a management program based on multiple-use, sustained-yield principles; and implement a resource management plan for each unit of the national forest system. Resource management plans must be in accordance with NEPA.

7.3.5.5 Fish and Wildlife Coordination Act of 1934 (16 U.S.C. §661, *et seq.*)

This act requires Federal agencies involved in actions that result in structural modification or control of any natural stream or body of water for any purpose to take action to protect the fish and wildlife resources that may be affected by the action.

7.3.5.6 Section 404 of the Clean Water Act of 1948 (33 U.S.C. §1344)

Section 404 of the CWA requires permits to authorize the discharge of dredged or fill material into navigable waters or wetlands and to authorize certain structures or work in or affecting navigable waters. Authority to issue permits resides with the U.S. Army Corps of Engineers. Individual permits issued by the U. S. Army Corps of Engineers under Section 404 are reviewed at the Federal level by EPA. At the state level, the Surface Water Quality Bureau of the NMED provides Section 401 certification for Section 404 permits.

7.3.5.7 Protection of Wetlands (EO 11988) and Floodplain Management (EO 11990)

EO 11990 requires government agencies to avoid short- and long-term adverse impacts to wetlands whenever a practicable alternative exists (42 FR 26961). EO 11988 directs Federal agencies to establish procedures to ensure that the potential effects of flood hazards and floodplain management are considered for any action undertaken (42 FR 26951). Impacts to floodplains are to be avoided to the extent practicable. The DOE issued regulations (10 CFR Part 1022) that establish procedures for compliance with these EOs. No floodplain/wetlands impacts were identified for the SWEIS for which a floodplain/wetlands assessment is required.

7.3.5.8 New Mexico Endangered Plant Species Act (NMSA 75-6)

This act protects endangered plant species within New Mexico. An endangered plant species is defined as any

plant whose prospects of survival within the state of New Mexico are in jeopardy or are likely to become jeopardized in the foreseeable future. Species of plants determined to be endangered may not be taken, possessed, transported, exported from the state, processed, or sold.

7.3.5.9 New Mexico Wildlife Conservation Act (NMSA 17-2, Part 3)

This act establishes requirements for protecting wildlife, primarily related to taking for sport purposes, and permits for collecting and use. The act also protects endangered and threatened animals listed by the state of New Mexico.

7.3.5.10 New Mexico Raptor Protection Act (NMSA 17-2-14)

This act makes it unlawful to take, attempt to take, possess, trap or ensnare or injure, maim, or destroy any of the species of hawks, owls, and vultures.

7.3.5.11 New Mexico Wetlands Regulations (NMSA 75-8-2)

New Mexico has promulgated regulations for the protection of wetlands. New Mexico's definition of wetlands is identical to the Federal definition, except that constructed wetlands are not included. The DOE follows these regulations in evaluating proposed actions for wetlands impacts.

7.3.6 Cultural Resources

7.3.6.1 National Historic Preservation Act of 1966, as Amended (16 U.S.C. §470)

This act directs that sites with significant national historic value be placed on the National Register of Historic Places (NRHP). Government agencies must locate and inventory historic properties and cultural resources under their jurisdiction prior to taking an action that might harm them, with the intent of minimizing such harm through appropriate mitigation actions. As required by Section 106 of the act, proposed SNL/NM activities are evaluated in consultation with the State Historic Preservation Officer (SHPO) for possible effects on cultural resources. Most surveys are conducted on DOE property; however, when appropriate, surveys are conducted on land owned by other Federal agencies. The DOE holds discussions, as appropriate, with various Native American tribes to

determine how new SNL/NM activities might affect cultural resources. The tribes are also requested to provide input on what mitigation measures they want implemented before SNL/NM begins an activity. The DOE must also obtain comments from the Advisory Council on Historic Preservation prior to taking a proposed action at SNL/NM.

7.3.6.2 The American Indian Religious Freedom Act of 1978 (42 U.S.C. §1996)

This act establishes that it is the policy of the United States to protect and preserve for Native Americans their inherent right of freedom to believe, express, and exercise their traditional religions. This includes access to sites, uses and possession of sacred objects, and the freedom to worship through ceremonies and traditional rites. In accordance with the *American Indian Religious Freedom Act*, SNL/NM activities are planned so that they do not adversely affect the practice of traditional religions. Tribal groups are notified of projected construction activities and are asked to inform the DOE if any activity will affect a traditional cultural property.

7.3.6.3 Religious Freedom Restoration Act of 1992 (42 U.S.C. §2000bb)

This act states that the Federal government will not, through its actions, substantially burden a person's free exercise of religion. If a government action will burden the exercise of religion, the agency involved must demonstrate that the action is in the furtherance of a compelling government interest and that the action is the least restrictive means of furthering that compelling interest.

7.3.6.4 The Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. §3001)

This act states that tribal descendants shall own Native American human remains and cultural items discovered on Federal lands after November 16, 1990. When items are discovered during an activity on Federal lands, the activity is to cease and the appropriate tribal government is to be notified. Work on the activity can resume 30 days after the receipt of certification that notice has been received by the tribal government. A consultation process is used to determine which tribe(s) is affiliated with the items, and disposition and treatment of the items is accomplished in accordance with the wishes of the affiliated tribe.

7.3.6.5 Archaeological Resource Protection Act of 1979, as Amended (16 U.S.C. §470aa)

This act requires the preservation and management of archaeological resources on lands administered by Federal agencies. SNL/NM maintains a cultural resources management database, and this information continues to be used in planning remediation and other construction activities to prevent damage to or destruction of archaeological resources at SNL/NM. Archaeological survey reports are prepared for the DOE by cultural resource specialists and are submitted to the SHPO for review and concurrence.

7.3.6.6 Protection of Historic and Cultural Properties (36 CFR Part 800)

This regulation defines the process used by Federal agencies to meet their responsibilities under Section 106 of the *National Historic Preservation Act*. Section 106 of the act requires Federal agencies to take into account the effects of the agency's activities on properties included in or eligible for the NRHP and, prior to approval of an undertaking, to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the activity. The overall goal is to accommodate historic preservation concerns during Federal undertakings.

7.3.6.7 National Historic Preservation (EO 11593)

This EO requires Federal agencies, including the DOE, to locate, inventory, and nominate properties under their jurisdiction or control to the NRHP if those properties qualify (36 FR 8921). The DOE is required to provide the Advisory Council on Historic Preservation the opportunity to comment on possible impacts of a proposed activity on any potentially eligible or listed resources.

7.3.6.8 Indian Sacred Sites (EO 13007)

This EO requires that each executive branch agency with statutory or administrative responsibility for the management of Federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, accommodate access to and ceremonial use of sacred sites by Native American religious practitioners and avoid adversely affecting the physical integrity of such sacred sites (61 FR 26771).

7.3.7 Air Quality

7.3.7.1 Clean Air Act of 1955, as Amended (42 U.S.C. §7401)

The CAA establishes air quality standards to protect public health and the environment from the harmful effects of air pollution. The act requires establishment of national standards of performance for new stationary sources of atmospheric pollutants, emissions limitations for any new or modified structure that emits or may emit an air pollutant, and standards for emission of hazardous air pollutants. In addition, the CAA requires that specific emission increases be evaluated to prevent a significant deterioration in air quality.

The *Clean Air Act Amendments of 1990*, signed into law on November 15, 1990, enhanced and expanded existing authorities and created new programs in the areas of permitting, enforcement, and operations in nonattainment areas (areas not meeting air quality standards), control of acid rain, regulation of air toxins, mobile sources, and protection of the ozone layer. Section 118 of the act and EO 12088, *Federal Compliance With Pollution Control Standards* (43 FR 47707), require that each Federal agency, such as the DOE, with jurisdiction over any property or facility that might result in the discharge of air pollutants, comply with all Federal, state, interstate, and local requirements with regard to the control and abatement of air pollution to the same extent as any nongovernmental entity.

The EPA is the regulating authority for the CAA. However, the EPA has granted authority to the state of New Mexico for regulating air quality under an approved state implementation plan (SIP). The EPA has not yet delegated to the state the authority for implementing the regulations promulgated for stratospheric ozone protection and the accidental release provisions of the act. The EPA also continues to regulate the radionuclide National Emissions Standards for Hazardous Air Pollutants (NESHAP) and radon emissions. In New Mexico, all of the CAA regulations, with these exceptions, have been adopted by the state as part of the SIP and are regulated under the *New Mexico Air Quality Control Act* (New Mexico Statutes Annotated [NMSA] 74-2).

On July 18, 1997, EPA adopted a new National Ambient Air Quality Standard (NAAQS) for particulate matter with a diameter less than or equal to 2.5 micrometers (PM_{2.5}) and reference methods for determining

attainment with the standard. On June 5, 1998, SNL/NM became subject to a new 8-hour, 0.08-ppm ozone standard, replacing the previous 1-hour, 0.12-ppm ozone standard (63 FR 31066). Both standards will be incorporated into the SIP for New Mexico and be applicable to SNL/NM. Determination of attainment of both standards is based on a reference method using 3-year averaging.

In addition to the existing Federal programs, the *Clean Air Act Amendments of 1990* mandates new programs that may affect future SNL/NM programs. These programs require technology for controlling hazardous air pollutants and replacing chlorofluorocarbons. Regulations are still being developed to implement these aspects of the act.

7.3.7.2 Approval and Promulgation of Air Quality Implementation Plans, New Mexico (40 CFR Part 52)

This regulation provides for a revision to the New Mexico SIP. It provides changes to the plan to clarify that any monitoring approved for the source (and included in the Federally enforceable operating permit) may form the basis of the compliance certification, and any credible evidence may be used for purposes of enforcement in Federal court.

7.3.7.3 Protection of Environment: National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

This regulation limits the radiation dose to the public from airborne radionuclide emissions from DOE facilities to 10 mrem/yr effective dose equivalent (EDE) (40 CFR §61.92). The standards also prescribe emission monitoring and test procedures for determining compliance with the 10 mrem/yr standard and reporting and permit provisions.

7.3.7.4 Accidental Release Prevention Requirements: Risk Management Programs (40 CFR Part 68)

The intent of this regulation is to prevent accidental releases to the air and mitigate the consequences of such releases by focusing prevention measures on chemicals that pose the greatest risk to the public and the environment. This regulation requires the preparation of risk management plans for listed regulated chemicals at SNL/NM by June 1999 and within 3 years after listing any new regulated chemical.

**7.3.7.5 Protection of Stratospheric Ozone
(40 CFR Part 82)**

The primary purposes of this regulation are to eliminate the production of certain ozone-depleting substances and require users of the substances to reduce emissions to the atmosphere through recycling and mandatory use of certified maintenance technicians. These requirements are applicable to SNL/NM and are implemented accordingly.

7.3.7.6 DOE 5400.5, Radiation Protection of the Public and the Environment

This order incorporates EPA NESHAP standards for public doses from air emissions and provides for additional monitoring and evaluation of the total public radiation dose from other pathways. The DOE's annual limit of radiation dose to a member of the general public from all DOE facilities is 100 mrem from all pathways. Unplanned releases of radioactive effluents to the air are also reported and analyzed under provisions of this order.

**7.3.7.7 New Mexico Air Quality Control Act
(NMSA 74-2)**

Nonradioactive air emissions from SNL/NM facilities are subject to the regulatory requirements established under this act. The New Mexico Environmental Improvement Board (NMEIB), as provided by the act, regulates air quality through a series of air quality control regulations. These regulations also include emission standards for emission sources and processes such as open burning, boilers, and asphalt plants. These regulations are administered by the NMED.

**7.3.7.8 New Mexico Ambient Air Quality Standards
(20 NMAC 2.3)**

The objective of this regulation is to establish ambient air quality standards for the areas of New Mexico under the jurisdiction of the NMEIB. The adoption of these statewide ambient air quality standards does not prohibit the promulgation of standards for specific areas, functions, and conditions within the state by municipalities and certain counties. Standards are established in the regulations for total suspended particulates, sulfur dioxide, hydrogen sulfide, total reduced sulfur, carbon monoxide, and nitrogen dioxide.

**7.3.7.9 New Mexico Operating Permits
(20 NMAC 2.70)**

On July 21, 1992, the EPA promulgated 40 CFR Part 70, *Operating Permit Program*, which implements Title V of the CAA. The purposes of this program are to identify all the air quality regulations and emission limitations applicable to an air pollution source and establish monitoring, record-keeping, and reporting requirements necessary to demonstrate continued compliance with these requirements. This regulation required each state to develop an operating permit program meeting the minimum requirements set forth in 40 CFR Part 70 and submit their program to the EPA for review by November 1993. The NMED Operating Permit Program was approved by the EPA in 1993. It requires that all major producers of air pollution obtain an operating permit from NMED. Due to SNL/NM's potential to emit large quantities of regulated air pollutants (nitrogen oxides and carbon monoxide primarily from steam plants), SNL/NM is considered a major source. In accordance with this regulation, SNL/NM submitted an operating permit application to NMED in 1996.

**7.3.7.10 New Mexico Construction Permits
(20 NMAC 2.72)**

Provisions of this regulation require construction permits for any new or modified source of any regulated air contaminant if the source is expected to exceed threshold emission rates. More than 500 toxic air pollutants are regulated, and each chemical's threshold hourly rate is based on its toxicity. Each new or modified air emission source is reviewed and conservative estimates are made of maximum hourly chemical use and emissions. These estimates are compared with the applicable 20 New Mexico Administrative Code (NMAC) 2.72 limits to determine whether additional permits are required.

**7.3.7.11 Prevention of Significant Deterioration
(20 NMAC 2.74)**

This regulation has stringent requirements that must be addressed before construction can begin on any new, large, stationary source. Under this regulation, wilderness areas, national parks, and national monuments receive special protection. All of the new or modified air emission sources at SNL/NM are reviewed for compliance with the requirements of 20 NMAC 2.74. Because the total emissions of any criteria pollutant from SNL/NM are below the prevention-of-significant-deterioration-threshold of 250 tons a year, currently this regulation does not apply to SNL/NM.

7.3.7.12 Emission Standards for Hazardous Air Pollutants (20 NMAC 2.78)

This regulation has adopted by reference all of the Federal NESHAP provisions, except those for radionuclides and residential wood heaters. The only two nonradionuclide NESHAP provisions applicable to SNL/NM are those for asbestos and beryllium.

Under NESHAP provisions for asbestos, SNL/NM is required to notify NMED of asbestos removal operations and disposal quantities and to ensure that these operations produce no visible emissions. Asbestos removal activities involving less than 160 ft² are covered by an annual small-job notification to NMED. Projects involving greater amounts of asbestos require separate advance notification to NMED. Quantities of asbestos wastes for both small and large jobs are reported to NMED on a quarterly basis. These reports include any asbestos contaminated, or potentially contaminated, with radionuclides. Radioactively contaminated material is disposed of in a designated radioactive asbestos burial area. Nonradioactive asbestos is transported offsite to designated commercial asbestos disposal areas.

The beryllium NESHAP provisions include requirements for preconstruction and preoperation approval of beryllium machining operations and for start-up testing of stack emissions from these operations. Before the beryllium NESHAP became applicable for DOE operations in the mid-1980s, NMED, DOE, and SNL/NM agreed to follow the NMED new-source preconstruction/preoperation approval process for large, existing beryllium-machining operations at SNL/NM. Since then, several very small beryllium-machining operations that were already in existence have been registered with NMED.

7.3.7.13 Conformity of General Federal Actions to the State Implementation Plan (20 NMAC 2.98)

The purpose of this regulation is to implement Section 176(c) of the CAA and regulations under 40 CFR Part 51, Subpart W, *Determining Conformity of General Federal Actions to State or Federal Implementation Plans*, with respect to the conformity of general Federal actions to the SIP. Under those authorities, no department, agency or instrumentality of the Federal government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity that does not conform to a SIP. This regulation sets forth policy, criteria, and procedures for demonstrating and assuring conformity of such actions to the SIP.

7.3.8 Human Health and Worker Safety (Including Accidents)

7.3.8.1 Occupational Radiation Protection (10 CFR Part 835)

This regulation derives regulatory requirements from the AEA and not from OSHA. 10 CFR Part 835 establishes worker radiation protection standards limiting exposures from ionizing radiation. For the occupational worker, the standard is 5 rem (5,000 mrems) in any one year; and for the public the standard is 100 mrems/yr. The standards for both internal and external exposure are described in Subpart C. The as low as reasonably achievable (ALARA) goal is set forth as the approach to be implemented by the DOE for radiation protection of workers and the general public. The management and control of radiation exposure will involve ALARA when considering individual and collective exposures.

7.3.8.2 Occupational Safety and Health Act of 1970 (29 U.S.C. §651)

The *Occupational Safety and Health Act* (OSHA) of 1970, administered and enforced by the U.S. Department of Labor (DOL), establishes a national policy to provide safe and healthful working conditions for every working man and woman. States are encouraged to assume responsibility for administration of their own safety and health standards. Only public employers, (that is, Federal, state, and municipal governments) and mining employers are excluded. Mining employers are covered by other safety and health acts. Federal agencies such as the DOE must have in place equivalent safety standards, as a minimum.

OSHA standards are designed to reduce on-the-job injuries and to develop health standards to limit workers risk of developing occupational disease. OSHA standards are universal and cover hazards that exist in a wide variety of industries. These are compiled as general industry standards. 29 CFR Part 1910 covers general industry standards, including walking and working surfaces, platforms and their use, health and environmental controls, hazardous materials, personal protective equipment, medical and first aid, fire protection, compressed gas and air equipment, materials handling and storage, machinery and machine guarding, hand and portable tools, welding, cutting and brazing, electrical, commercial diving, and toxic and hazardous substances. OSHA has promulgated industry-specific standards for construction, agriculture, and maritime sectors.

The provisions of Section 19 of the OSHA; EO 12196 (45 FR 12769); and Part 1925 (*Safety and Health Standards for Federal Service Contracts*) and Part 1960 (*Basic Program Elements for Federal Employees OSHA*) of Title 29 identify OSHA's applicability to DOE operations. These provisions are summarized as follow:

Furnish employees with places and conditions of employment that are free from recognized hazards that are causing or are likely to cause death or serious physical harm.

Set up procedures for responding to employee reports of unsafe and unhealthful working conditions.

Acquire, maintain, and require the use of approved personal protective equipment and safety equipment.

Inspect all workplaces at least annually with participation by representatives of employees.

Establish procedures to ensure that no employee is subject to restraint, interference, coercion, discrimination, or reprisal for exercising his/her right under the agency's safety and health program.

Post notices of unsafe or unhealthful working conditions found during inspections.

Ensure prompt abatement of hazardous conditions. Employees exposed to the conditions must be so informed and Imminent-danger corrections must be made immediately.

Set up management information systems to keep records of occupational accidents, injuries, illnesses, and their causes, and post annual summaries of injuries and illnesses for a minimum of 30 days at each establishment.

Conduct occupational safety and health training programs for top management, supervisors, safety and health personnel, employees, and employee representatives.

Occupational Safety and Health Standards (29 CFR Part 1910)

29 CFR Part 1910 provides standards for safe operations of facilities. Part 1910 includes 19 subparts, all of which are applied to SNL/NM operations. These subparts cover items such as toxic and hazardous substances, personal protective equipment, material handling and storage, permissible exposure limits, general environmental controls, and reporting of occupational accidents, injuries, and illnesses.

Federal Employee Occupational Safety and Health Programs and Related Matters (29 CFR Part 1960)

29 CFR Part 1960 provides regulations and guidelines for implementation of EO 12196, *Occupational Safety and Health Programs for Federal Employees*, which establishes requirements and procedures for Federal agencies to provide occupational safety and health programs for their employees (45 FR 12769). Federal agencies such as the DOE must have in place equivalent safety standards, as a minimum.

The head of each Federal agency is charged with the responsibility to establish and maintain an effective and comprehensive occupational safety and health program which is consistent with the standards set by OSHA for private sector employees. That broad mandate is further defined by EO 12196, which identifies the responsibilities of the agencies and the role of the Secretary of Labor in developing, implementing, and evaluating such programs.

DOE safety standards are specified in DOE Orders. Although OSHA does not directly apply to DOE employees, SNL/NM's prime contract with the DOE requires adherence to DOE 440.1, which states that contractors and contractor employees shall adhere to DOE-prescribed OSHA standards and requirements (29 CFR) for worker safety. Sandia Corporation, as a private company, is required to abide by OSHA regulations as well as any DOE contractual obligations or requirements in its operation of SNL/NM. These two sets of agency requirements (DOE and OSHA) may overlap in numerous health and safety areas.

Recording and Reporting Occupational Injuries and Illnesses (29 CFR Part 1904)

29 CFR Part 1904 specifies *The Record-Keeping Guidelines For Occupational Injuries and Illnesses, 1986*, which contains the description of the system requirements that businesses must follow in keeping records of work-related occupational deaths, injuries, or illnesses. It includes requirements for recording and reporting to the U.S. Bureau of Labor Statistics, all occupational injuries and illnesses requiring more than a first-aid response and reporting of all occupational fatalities. These occupational injury and illness records have multiple purposes. Mainly, they are to provide information for employers and employees, raising their awareness of the frequency and kinds of injuries and

illnesses occurring in the workplace and their related hazards. They also serve as a management tool for the administration of company safety and health programs. The information is also used by OSHA compliance staff to focus their inspections on the safety and health hazards revealed by the injury and illness records. Lastly, the records may be used to produce statistical data on the incidence of workplace injuries and illnesses, thereby measuring the magnitude of the injury and illness problem across the country.

New Mexico-Approved State Plans for Enforcement of State OSHA Standards (29 CFR Part 1952, Subpart DD)

29 CFR Part 1952 establishes the record-keeping and reporting requirements for states that have their own occupational safety and health programs and that have been approved by OSHA to enforce safety and health regulations in their own state. The state of New Mexico has adopted the *Federal Field Operations Manual* and all the Federal standards except those related to the maritime sector. The plan identifies the New Mexico Environmental Improvement Agency (NMEIA), with its subordinate organization, the Occupational Radiation Protection Division (ORPD), as the state agency designated to administer the plan. In addition, the ORPD will enforce state standards under the *Radiation Protection Act* (Ch. 284, Laws of 1971, NMSA 12-9-1 through 12-9-11). In the event of a conflict of standards, employee protection will be enforced using the more stringent regulation.

DOE O 232.1A Occurrence Reporting and Processing of Operations Information

DOE O 232.1 establishes a system for occurrence reporting and defines a number of situations that must be formally reported, all of which are important to the overall safety, health, and security of workers in the workplace. Many of the elements contained in cancelled DOE 5000.3B, *Occurrence Reporting and Processing of Operations Information*, are linked with DOE 232.1. These requirements include the categorization of occurrences that have potential safety, environmental, health, or operational significance; DOE notification of these occurrences; and the development and submission of documented follow-up reports. Occurrence reports must be done in a timely manner and contain sufficient information describing the occurrence, significance, causal factors, and corrective actions. Occurrence reporting increases sensitivity to potentially unsafe

conditions, requires analysis to determine causes of events, is a vehicle for formal corrective actions, and fosters lessons-learned programs. The documentation and distribution requirements for the occurrence reports are satisfied through the use of a centralized, unclassified operational database called the Occurrence Reporting and Processing System (ORPS) (DOE 1998o).

DOE O 231.1, Environment, Safety, and Health Reporting

The objective of this order is to ensure the collection and reporting of information on environment, safety, and health that is required by law or regulation or that is essential for evaluation of DOE operations and for identifying opportunities for improvement needed for planning purposes within the DOE. Elements contained in this order link to requirements specified in parts of cancelled DOE 5483.1A, *Occupational Safety and Health Program for DOE Contractor Employees at Government-Owned Contractor-Operated Facilities*, and parts of cancelled DOE 5484.1, *Environmental Protection, Safety, and Health Protection Information Reporting Requirements*. Requirements for an annual site environmental report, containing summary environmental data, are set forth in DOE O 231.1. It also specifies the need for the annual reporting of occupational safety and health information to the Secretary of Energy in order to allow the Secretary to comply with 29 CFR Part 1960.

DOE 5400.5, Radiation Protection of the Public and Environment

This order establishes standards and requirements for operations of the DOE and its contractors with respect to protection of members of the public and the environment against undue risk from radiation. This order provides for general standards; requirements for radiation protection of the public and the environment; derived concentration guides for air and water; and guidelines, limits, and controls for residual radioactive materials. The order also establishes the DOE's objective to operate its facilities and conduct its activities so that radiation exposures to members of the public are maintained within the limits established by this order, and to control radioactive contamination through the management of the DOE's real and personal property. This order limits the annual EDE to any member of the public from all sources to 100 millirems per year. The requirements of this order are being incorporated into a nuclear safety regulation.

DOE O 440.1A, Worker Protection Management for DOE Federal and Contractor Employees

The purpose of DOE O 440.1A is to establish the framework for an effective worker protection program that will reduce or prevent injuries, illnesses, and accidental losses by providing Federal and contractor employees with a safe work environment. This order replaces elements contained in cancelled DOE 5480.4. It contains requirements for mandatory environmental, safety, and health standards for areas such as fire protection, threshold limit value (TLVs) for chemical substances and physical agents in the workplace and other industrial hygiene requirements; construction safety, general safety, explosives safety, firearms safety, and motor vehicle safety. It also establishes radiological protection program requirements that, combined with 10 CFR Part 835 and associated implementation guidance, form the basis of a comprehensive radiological protection program.

DOE 5480.1B, Environment, Safety, and Health Program for Department of Energy Operations

The purpose of DOE 5480.1B is to establish the environment, safety, and health program for the DOE. It establishes standards and requirements for the DOE and DOE contractor operations regarding protection of the public and the environment from undue radiological risk. It contains the DOE's policy of adopting and implementing radiation protection standards consistent with those of the NRC. These standards are applied to DOE facilities and activities not subject to NRC licensing.

The related DOE 5480.4 specifies application of the mandatory ES&H standards applicable to all DOE contractor operations, provision of a listing of reference ES&H standards, and identification of the sources of these standards. This order is applicable for all facility design, construction, operation, modification, and decommissioning actions.

DOE 5483.1A, Occupational Safety and Health Program for DOE Contractor Employees at Government-Owned Contractor-Operated Facilities

DOE 5483.1A establishes requirements and procedures to ensure that occupational safety and health standards under the AEA and other statutes provide government-

owned, contractor-operated facility employees with occupational safety and health protection, consistent with that afforded private industry employees through the OSHA. DOE O 440.1A contains elements linked to 5483.1A to provide for the future replacement of 5483.1A. Together, these orders form a framework for an effective worker protection program that will reduce or prevent accidental losses, injuries, and illnesses by providing DOE Federal and contractor workers with a safe and healthful workplace. The standards of this order are mandatory as a matter of DOE policy. Areas covered include, but are not limited to, hazardous waste management, fire protection, occupational health including radiation and chemical safety, and construction safety.

7.3.8.3 DOE O 225.1A, Accident Investigations

The objective of this DOE Order is to prescribe requirements for conducting investigations of certain accidents occurring at DOE sites. The prevention of reoccurrence of such accidents is also prescribed. The order aims to contribute to the improved environmental protection and safety of DOE employees, contractors, and the public. Requirements set forth in this order include the categorization of accidents, the notification of other agencies, the conduct of investigations of the accidents, and the closeout of the investigations.

7.3.8.4 Accidents

*Risk Management Program Rule
(40 CFR Part 68, Subpart G)*

This rule establishes the contents of Risk Management Plans (RMP) that the owner or operator of a facility handling regulated substances must submit to the EPA. An RMP includes information on the accidental release prevention and emergency response policies in effect, regulated substances handled, worst-case release scenario(s), the general accidental release prevention program and chemical-specific prevention steps, a 5-year accident history, the emergency response program, and planned changes to improve safety. In addition, the owner or operator must complete a single registration form that covers all regulated substances handled.

*DOE 5480.23,
Nuclear Safety Analysis Reports*

This order establishes requirements for contractors responsible for the design, construction, operation, decontamination, or decommissioning of nuclear

facilities to develop safety analyses reports (SAR) that establish and evaluate the adequacy of the safety basis of the facilities. The purposes and objectives of SARs are to accomplish the following:

- provide the basis for approval of new facilities and operations, major modifications thereto, and eventual decommissioning;
- define and control the safety basis and commitments;
- support DOE and contractor management safety oversight of facilities and operations; and
- be the primary reference on facility safety for use by the responsible contractor.

This order applies to all DOE elements and to covered contractors to the extent implemented under a contract or other agreement.

Preparation Guide for U.S. Department of Energy Nonreactor Nuclear Facility Safety Analysis Report, U.S. Department of Energy (DOE-STD-3009-94)

The purpose of this standard is to describe the SAR preparation method that is acceptable to the DOE. It was developed to assist Hazard Category 2 and 3 facilities in preparing SARs that will satisfy the requirements of the DOE 5480.23, *Nuclear Safety Analysis Reports*. Hazard Category 1 facilities are typically expected to be Category A reactors, for which extensive precedents for SARs already exist.

Guidance provided by this standard is generally applicable to any facility required to document its safety basis in accordance with the DOE 5480.23. For new facilities for which conceptual design or construction activities are in progress, elements of this guidance may be more appropriately handled as an integral part of the overall design requirement process. The methodology provided by DOE-STD-3009-94 focuses more on characterizing facility safety, with or without well-documented design information, than on the determination of facility design. Accordingly, contractors for facilities that are documenting conceptual designs for preliminary SARs should apply the process and format of this standard to the extent it is judged to be of benefit.

Beyond conceptual design and construction, the methodology described in this standard is applicable to the spectrum of missions expected to occur over the lifetime of a facility (production, shutdown/standby, decontamination, and decommissioning). As the phases

of facility life change, suitable methodology is provided for use in updating an existing SAR and in developing a new SAR if the new mission is no longer adequately encompassed by the existing SAR. This integration of the SAR with changes in facility mission and associated updates should be controlled as part of an overall safety management plan.

Hazard Categorization and Accident Analysis Techniques for Compliance with DOE 5480.23, Nuclear Safety Analysis Reports (DOE-STD-1027-92)

This standard is to be used with the DOE 5480.23, *Nuclear Safety Analysis Report*, and may not be applicable to other DOE orders. Regarding the applicability of the other nuclear safety orders to those facilities that fall below Category 3 criteria, as defined by the standard, program senior officials shall provide guidance, as appropriate. The DOE has the responsibility to establish rules, regulations, and orders, as necessary, to protect health or to minimize danger to life or property. In carrying out this responsibility, the DOE has issued Order 5480.23, which specifies requirements for safety analyses involving DOE nuclear facilities, and for submittal, review, and approval of contractor plans to meet these requirements.

The purpose of DOE-STD-1027-92 is to establish guidance for the preparation and review of hazard categorization and accident analysis techniques as required in DOE 5480.23. This order requires further guidance to ensure consistency across all nuclear facilities within DOE complex. DOE-STD-1027-92 imposes no new requirements on nuclear facilities. Instead, it focuses on

- the definition of the standard identifying nuclear facilities required to have SARs in order to comply with DOE 5480.23;
- the SAR implementation plan and schedule;
- the hazardous categorization methodology to be applied to all facilities; and
- the accident analysis techniques appropriate for the graded approach addressed in DOE 5480.23.

The objective of a graded approach is to apportion SAR requirements for analysis, evaluation, and documentation to the potential hazards associated with a particular operating DOE nuclear facility.

7.3.9 Transportation

7.3.9.1 Hazardous Materials Transportation Act of 1994 (49 U.S.C. §5101, *et seq.*)

Under this act, the Secretary of Transportation may establish regulations for the safe transport of hazardous materials. Such regulations may be applicable to manufacturers as well as transporters. Covered activities include packing, handling, labeling, marking, and routing of hazardous materials, as well as manufacturing, marking, maintaining, repairing, and testing of packages or containers used in the transportation of such materials.

7.3.9.2 DOE 1540.1A, Materials Transportation and Traffic Management

This order establishes DOE policies and procedures for the management of materials transportation activities, including traffic management, for other than intrabuilding and intrasite transfers. The provisions of this order apply to all elements of the DOE involved in transportation activities and responsible for the payment or reimbursement of charges for transportation services. It is DOE policy to ensure that traffic and transportation management shall be accomplished in a manner commensurate with operational requirements for transportation services, established practices and procedures for transportation safety, economy, efficiency, and cargo security, national transportation policy as established in 49 U.S.C. §1801 *et seq.*, *Transportation*, and implemented by the Federal agencies, and applicable Federal, state, local, and international transportation regulations.

7.3.9.3 DOE 5480.3, Safety Requirements for the Packaging and Transportation of Hazardous Materials, Hazardous Substances, and Hazardous Wastes

This order establishes safety requirements and procedures for the packaging and transporting of hazardous materials, hazardous substances, and hazardous waste including fissile materials. The provisions of this order apply to all DOE elements and contractors performing work for DOE, who are involved with the packaging or transporting (that is, shipping, carrying, or receiving) of hazardous materials, hazardous substances, or hazardous wastes. Packaging used by the DOE for hazardous materials shipments is either certified to meet specific performance requirements or built to specifications described in the DOE hazardous materials regulations (40 CFR Parts 171-173 and 177-180 and 10 CFR Part 71).

7.3.9.4 DOE 5610.12, Packaging and Offsite Transportation of Nuclear Components and Special Assemblies Associated with the Nuclear Explosives and Weapon Safety Program

This order establishes DOE policy, requirements, objectives, authorities, procedures, and responsibilities for the safe packaging and offsite transportation of nuclear components and special assemblies associated with the nuclear weapons program requiring the use of the Transportation Safeguards System. This order is part of DOE 5610-series of orders that implement the DOE's Nuclear Explosives and Weapon Safety Program, conducted in the interest of national security or in support of mutual defense treaty obligations and agreements.

7.3.9.5 International Atomic Energy Agency, Regulations for the Safe Transport of Radioactive Materials (1996 Edition)

The International Atomic Energy Agency, a specialized agency of the United Nations, is the primary international organization that enforces a system of safeguards to ensure that nonnuclear weapons states do not divert shipments of sensitive nuclear-related equipment from peaceful applications to the production of nuclear weapons. The agency's regulations for transporting radioactive materials have gained worldwide adoption, helping to control the radiation hazards associated with all modes of transport. They cover general provisions, activity limits and material restrictions, requirements and controls for transport, test procedures, and administrative requirements. Schedules are also included detailing transport requirements for specific radioactive material consignments.

7.3.9.6 International Civil Aviation Organization, Technical Instruction for Safe Transport of Dangerous Goods by Air, plus Supplement (Doc. 9284-AN/905)

The International Civil Aviation Organization was created in 1944 to promote the safe and orderly development of civil aviation in the world. As a specialized agency of the United Nations, it sets international standards and regulations necessary for the safety, security, efficiency, and regularity of air transport and serves as the medium for cooperation in all fields of civil aviation among its 183 contracting states. This technical guide provides requirements and standards for shipping dangerous goods by aircraft throughout the world.

7.3.9.7 International Air Transport Association, Dangerous Goods Regulations (38th Edition, 1996)

These regulations were published to provide procedures for the shipper and operator for the safe commercial air transport of articles and substances with hazardous properties. They also define necessary packaging materials and requirements.

7.3.9.8 United Nations, Recommendation on the Transport of Dangerous Goods (Document No. ST/SG/AC.10/1/Rev. 9)

These recommendations provide a uniform basis for development of harmonized regulations for all modes of transport, in order to facilitate trade and the safe transport of hazardous materials. These recommendations enhance safety, improve enforcement capability, and ease training requirements while enhancing global trade and economic development.

7.3.10 Waste Generation

7.3.10.1 Solid Waste Disposal Act of 1976 (42 U.S.C. §6902)

This act regulates the management of solid waste. Solid waste is broadly defined to include any garbage, refuse, sludge, or other discarded material including solid, liquid, semisolid, or contained gaseous materials resulting from industrial, commercial, mining, or agricultural activities. Specifically excluded as solid waste is source-special nuclear or byproduct material as defined by the AEA.

7.3.10.2 Resource Conservation and Recovery Act of 1978 (42 U.S.C. §6901)

This act amends the *Solid Waste Disposal Act* and establishes requirements and procedures for the management of hazardous wastes. As amended by the *Hazardous and Solid Waste Amendments of 1984* (HSWA), RCRA defines hazardous wastes that are subject to regulation and sets standards for generation, treatment, storage, and disposal facilities. The HSWA emphasize reducing the volume and toxicity of hazardous waste. They also establish permitting and corrective action requirements for RCRA-regulated facilities. RCRA was also amended by the Federal Facilities Compliance Act (FFCA) in 1992. It requires the EPA, or a state with delegated authority, to issue an order for compliance. A federal facilities compliance order was

issued by the NMED, requiring the DOE and SNL/NM to comply with the FFCA. Compliance with the order is achieved through site treatment plans prepared by the DOE.

Original jurisdiction for implementing RCRA was with EPA; however, RCRA authorizes EPA to turn this responsibility over to individual states as they develop satisfactory implementation programs. EPA granted base RCRA authorization to New Mexico on January 25, 1985, transferring regulatory control of hazardous wastes under RCRA to NMED. State authority for hazardous waste regulation is set forth in the *New Mexico Hazardous Waste Act*, which adopted, with a few minor exceptions, all of the Federal requirements in effect on July 1, 1993, concerning the generation and management of hazardous waste. On July 25, 1995, the state of New Mexico's Hazardous Waste Program was authorized by the EPA, in lieu of the Federal program, to regulate mixed waste.

SNL/NM received a RCRA Part A permit for interim status in August 1990, which has been updated regularly since that date. A Part B permit, which established requirements for management of existing hazardous waste management units, was granted on August 6, 1992.

The HSWA modified the permitting sections of RCRA (Sections 3004 and 3005). In accordance with these provisions, SNL/NM's permit to operate includes a section (HSWA Module VUI) that prescribes a specific corrective action program for SNL/NM, the primary focus of which is the investigation and cleanup, if required, of inactive sites called solid waste management units (SWMU). The HSWA Module specifies the corrective action process, which is being implemented at SNL/NM by the Environmental Restoration (ER) Program.

The corrective action process at SNL/NM consists of

- preparing RCRA facility investigations to identify the extent of contamination in the environment and the pathways along which these contaminants could travel to human and environmental receptors;

- preparing corrective measures studies to evaluate alternative remedies for reducing risks to human and environmental health and safety in a cost-effective manner; and

- implementing corrective measures – the remedy chosen by the regulatory authority is implemented, its effectiveness is verified, and ongoing control and monitoring requirements are established.

7.3.10.3 Underground Storage Tanks (42 U.S.C. §6901, Subtitle I)

Underground storage tanks (UST) are regulated as a separate program under RCRA, which establishes regulatory requirements for underground storage tanks containing hazardous or petroleum materials. NMED has been delegated authority for regulating SNL/NM under the *New Mexico Underground Storage Tank Regulations*, derived from the *New Mexico Hazardous Waste Act*.

7.3.10.4 Federal Facility Compliance Act of 1976 (42 U.S.C. §6961)

This 1992 act waives sovereign immunity from fines and penalties for RCRA violations at Federal facilities. However, it postponed the waiver for 3 years for storage prohibition violations with regard to land disposal restrictions for the DOE's mixed wastes. It also required the DOE to prepare plans for developing the required treatment capacity for each site at which it stores or generates mixed waste. The state or EPA must approve each plan (referred to as a site treatment plan) after consultation with other affected states, consideration of public comments, and issuance of an order by the regulatory agency requiring compliance with the plan. The act further provides that the DOE will not be subject to fines and penalties for storage prohibition violations for mixed waste as long as it is in compliance with an existing agreement, order, or permit.

The FFCA requires that site treatment plans contain schedules for developing treatment capacity for mixed waste for which identified technologies exist. The DOE must provide schedules for identifying and developing technologies for mixed waste without an identified existing treatment technology.

SNL/NM has submitted site treatment plans to the NMED to address the development of new treatment capabilities in compliance with the act. A Federal Facility Compliance Order was signed on October 4, 1995, to address storage and treatment of mixed waste (NMED 1995). A negotiation of a Mixed Waste Land Disposal Restriction Federal Facilities Compliance Agreement of March 15, 1994 terminated this new agreement order.

7.3.10.5 Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as Amended (42 U.S.C. §9601, *et seq.*)

This act, commonly referred to as the *Comprehensive Environmental Response, Compensation, and Liability Act*

(CERCLA), or Superfund, establishes liability standards and governmental response authorization to address the release of a hazardous substance or contaminant into the environment. The EPA is the regulating authority for the act. SNL/NM has been ranked and, having scored very low, was not placed on the National Priority List for past releases into the environment. Therefore, all legacy contamination found in the environment at SNL/NM is primarily cleaned up under RCRA corrective action authority (HSWA Permit Module VIII).

CERCLA was amended by the *Superfund Amendments and Reauthorization Act* (SARA) in 1986. SARA Title III establishes additional requirements for emergency planning and reporting of hazardous substance releases. These requirements are also known as the *Emergency Planning and Community Right-to-Know Act* (EPCRA), which, due to its unique requirements, is discussed separately below. SARA also created liability for damages to or loss of natural resources resulting from releases into the environment and required the designation of Federal and state officials to act as public trustees for natural resources. The *New Mexico Natural Resources Trustee Act* (NMSA 75-7) is the New Mexico statute designed to protect state natural resources. The DOE, as the Federal trustee, and the state of New Mexico have authority to act as trustees for most resources at SNL/NM. The DOI retains authority for certain designated sensitive natural resources. Other natural resource trustees act for lands surrounding SNL/NM, including the Pueblo tribes. Procedures for conduct of natural resource damage assessments are codified at 43 CFR Part 11 (*Natural Resource Damage Assessments*). A strategy and plan are being developed for integrating the natural resource damage assessment requirements into the HSWA corrective action process at SNL/NM.

SNL/NM is subject to, and required to report releases to the environment under the notification requirements in, 40 CFR Part 302 (*Designation, Reportable Quantities, and Notification*) and EPCRA, as applicable.

7.3.10.6 Emergency Planning and Community Right- to-Know Act of 1986 (42 U.S.C. §11001)

EPCRA is also known as SARA Title III. Section 313 of the act requires facilities meeting certain standard industrial classification code criteria to submit an annual toxic chemical release inventory report (*Toxic Chemical Release Reporting: Community-Right-to-Know* [40 CFR Part 372]). For covered facilities, a report describing the use of, and emissions from, Section 313 chemicals stored or used onsite and meeting threshold

planning quantities, must be submitted to the EPA and the New Mexico Emergency Management Bureau every July for the preceding calendar year. Other provisions of the act require planning notifications (Sections 302 and 303), extremely hazardous substance release notifications (Section 304), and annual chemical inventory/material safety data sheet reporting (Sections 311 and 312). Federal agencies were also defined as persons for the purposes of EPCRA, requiring all Federal facilities, regardless of standard industrial classification code, to meet the requirements of the act.

SNL/NM does not meet standard industrial classification code criteria for Section 313 reporting, but has voluntarily submitted annual toxic chemical release inventory reports since 1987. All research operations are exempt under provisions of the regulation, and only pilot plants, production, or manufacturing operations at SNL/NM are reported.

7.3.10.7 Pollution Prevention Act of 1990 (42 U.S.C. §13101)

This act sets the national policy for waste management and pollution control that focuses first on source reduction, followed sequentially by environmentally safe recycling, treatment, and disposal. In response, the DOE committed to voluntary participation in EPA's 33/50 Pollution Prevention Program, as set forth in Section 313 of SARA. The goal for facilities already involved in Section 313 compliance was to achieve a 33 percent reduction in release of 17 priority chemicals by 1997 from a 1993 baseline. SNL/NM did not have reportable thresholds for any of the 17 priority chemicals listed. In August 1994, EO 12856 (*Right-to-Know Laws and Pollution Prevention Requirements*) was issued, expanding the 33/50 program and requiring the DOE to reduce its total release of all toxic chemicals by 50 percent by December 31, 1999 (58 FR 41981). In response, the DOE has developed departmental pollution prevention goals and pollution prevention program plans to meet these goals. Each DOE site, including SNL/NM, develops its own site goals contributing to the DOE-wide goals and implements actions to achieve those goals. For FY 1996, SNL/NM met or exceeded all waste pollution prevention commitments.

7.3.10.8 Toxic Substances Control Act of 1977 (15 U.S.C. §2601)

The TSCA, unlike other statutes that regulate chemicals and their risk after they have been introduced into the environment, was intended to require testing and risk

assessment before a chemical is introduced into commerce. It also establishes record-keeping and reporting requirements for new information regarding adverse health and environmental effects of chemicals. The act governs the manufacture, use, storage, handling, and disposal of polychlorinated biphenyls (PCBs); sets standards for cleaning up PCB spills, and establishes standards and requirements for asbestos identification and abatement in schools. It is administered by the EPA.

Because SNL/NM's research and development activities are not related to the manufacture of new chemicals, PCBs are SNL/NM's main concern under the act. Activities at SNL/NM that involve PCBs include, but are not limited to, management and use of authorized PCB-containing equipment, such as transformers and capacitors, management and disposal of substances containing PCBs (dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, slurries, dredge spoils, and soils), and management and disposal of materials or equipment contaminated with PCBs as a result of spills.

The TSCA regulates PCB items and materials having concentrations exceeding 50 ppm. Implementing regulations (40 CFR 761) contain an antidilution clause that requires waste to be managed based on the PCB concentration of the source (transformer, capacitor, PCB equipment, etc.), regardless of the actual concentration in the waste. If the concentration at the source is unknown, the waste must be managed as though it were a spill of mineral oil with an assumed PCB concentration of 50 to 500 ppm. At SNL/NM, PCB-contaminated wastes are transported offsite for treatment and disposal unless they also have a radioactive component. Solid wastes containing PCBs are disposed of at an offsite facility that has been approved by the EPA for such disposal (provided that strict requirements are met with respect to notification, reporting, record-keeping, operating conditions, environmental monitoring, packaging, and types of wastes disposed).

SNL/NM currently has no treatment or disposal facilities for liquid wastes that contain PCBs. Such wastes have been stored at the Hazardous Waste Management Facility (HWMF) (see Section 4.12).

The asbestos abatement implementing regulations of the act (40 CFR Part 763) relate primarily to the identification and abatement of asbestos-containing materials in schools. SNL/NM conducts asbestos abatement projects in accordance with OSHA requirements (29 CFR Part 1926), applicable

requirements of the CAA (NESHAP, 40 CFR Part 61, Subpart M, for notification and waste management/disposal), and the *New Mexico Solid Waste Management Regulations*.

7.3.10.9 Radioactive Waste Management Regulations

Low-level radioactive waste is a waste that contains radioactivity and is not classified as high-level radioactive waste, TRU waste, or spent nuclear fuel. Solid low-level radioactive waste usually consists of clothing, tools, and glassware. Low-level radioactive liquid waste consists primarily of water circulated as cooling water. Radioactive waste management at SNL/NM is regulated under the AEA, through applicable DOE orders (primarily DOE Order 5820.2A, *Radioactive Waste Management*, and DOE 5400.5, *Radiation Protection of the Public and the Environment*). DOE 5400.5 also provides criteria and processes for the release of materials (through sale or disposal) to assure that released materials do not constitute a hazard to the public and the environment due to their radioactive content. This includes materials that are not waste.

Low-level mixed waste (LLMW) is waste containing both hazardous and low-level radioactive components. As a hazardous waste, LLMW is regulated under RCRA and the New Mexico Hazardous Waste Act. Because it is radioactive, the radioactive component is also regulated under the AEA through applicable DOE orders. LLMW is scheduled to be disposed of at an offsite facility.

Due to the nationwide lack of DOE treatment capacity and capability for mixed waste, SNL/NM has continued to store mixed wastes on site. On March 15, 1994, the DOE and the EPA signed a FFCA to ensure complete compliance with the storage prohibitions for mixed waste at SNL/NM. This agreement was terminated with signing of the Federal Facility Compliance Order in October 1995, implementing the site treatment plan for SNL/NM, under provisions of the consent agreement.

Transuranic (TRU) waste, regardless of form or source, is contaminated with alpha-emitting transuranium radionuclides with half-lives greater than 20 years and concentrations greater than or equal to 100 nanocuries per gram at the time of assay. TRU waste at SNL/NM will be sent to the WIPP when that facility opens. TRU waste is subject to waste acceptance criteria for the WIPP, U.S. Department of Transportation shipping requirements, and applicable DOE orders dealing with its safe handling and management.

7.3.10.10 Superfund Implementation (EO 12580)

This EO, which applies to facilities that are not on the National Priorities List, delegates responsibility to the heads of executive departments and agencies at those facilities for undertaking remedial and removal actions for releases or threatened releases (52 FR 2923). This authority applies to any cleanup actions not included as a RCRA corrective action.

7.3.10.11 Right-to-Know Laws and Pollution Prevention Requirements (EO 12856)

This EO directs all Federal agencies to reduce and report toxic chemicals entering any waste stream; improve emergency planning, response, and accident notification; and encourage clean technologies and testing of innovative prevention technologies (58 FR 41981). The DOE and SNL/NM meet applicable reporting requirements under the provisions of EPCRA and the *New Mexico Hazardous Chemicals Information Act*, in accordance with the EO.

7.3.10.12 DOE 5820.2A, Radioactive Waste Management

This order establishes the policies, guidelines, and minimum requirements by which the DOE and its contractors manage radioactive waste, mixed waste, and contaminated facilities. This order establishes DOE policy that radioactive and mixed wastes be managed in a manner that ensures protection of the health and safety of the public, the DOE, contractor employees, and the environment. In addition, the generation, treatment, storage, transportation, and disposal of radioactive wastes, and the other pollutants or hazardous substances they contain, must be accomplished in a manner that minimizes the generation of such wastes across program office functions and complies with all applicable Federal, state, and local environmental, safety, and health laws and regulations and DOE requirements.

7.3.10.13 New Mexico Solid Waste Act (NMSA 74-9-1 through 74-9-42)

This act established a comprehensive state-wide solid waste management program. It seeks to provide technical, financial, and program development assistance to counties and municipalities for solid waste management; promote source reduction, recycling, re-use, treatment, and transformation of solid waste; regulate all aspects of solid waste handling; and conserve, recover, and recycle resources. It also requires permits for the construction, operation, closure, and post-closure maintenance of solid waste facilities.

7.3.10.14 New Mexico Solid Waste Management Regulations (20 NMAC 9.1)

These regulations outline the specific requirements for New Mexico's counties and municipalities for the transportation, storage, transfer, processing, transformation, recycling, and disposal of solid waste. The objectives of the regulations are to establish the standards of practice in the following areas of solid waste management: facility permits, facility size, closure and post-closure operation, operator certification, special waste, groundwater monitoring, and financial assurance.

7.3.10.15 New Mexico Underground Storage Tank Regulations (20 NMAC 5.1)

These regulations include requirements for design, construction, and installation of new tanks; maintenance of a leak detection system and associated record-keeping; reporting of hazardous or petroleum releases; corrective action in the event of a release; and closure of UST systems. All existing tank systems must either meet new tank performance standards or undergo RCRA closure by December 22, 1998. All SNL/NM USTs will be upgraded or undergo RCRA closure by the December 22, 1998, deadline.

7.3.10.16 New Mexico Hazardous Chemicals Information Act (NMSA 74-4E-1 through 74-4E-9)

This act implements the hazardous chemical information and toxic release reporting requirements of SARA Title III for covered facilities in New Mexico.

7.3.10.17 New Mexico Hazardous Waste Act (NMSA 74-4-1 through 74-4-13)

This act establishes New Mexico's program for hazardous waste management and control. Since its initial adoption in 1997, the act has been substantially amended to bring its provisions more closely in conformance with RCRA and its amendments. The major provisions of the act have been taken directly from Subtitle C, *Hazardous Waste Management*, and Subtitle I, *Regulation of Underground Storage Tank*, of RCRA.

7.3.11 Noise and Vibration

7.3.11.1 Noise Control Act of 1972 (42 U.S.C. §4901)

By this act, Congress directed all Federal agencies to carry out the programs under their control to promote an environment free from noise that jeopardizes public health or welfare. Furthermore, it requires any Federal agency engaged in any activity resulting, or which may

result, in the emission of noise, to comply with Federal, state, interstate, and local requirements regarding control and abatement of environmental noise to the same extent that any person is subject to such requirements. Beyond the general obligation in the act and implementing regulations, there are no specific Federal or state requirements regulating environmental noise.

7.3.11.2 Occupational Noise Exposure (29 CFR §1910.95)

This regulation provides protection to workers from excessive levels of noise. It establishes sound levels that are not to be exceeded for specific periods of time without protective measures being taken. When employees are subjected to sound exceeding the specified levels, feasible administrative or engineering controls are to be instituted. If such controls fail to reduce sound levels to the prescribed levels, personal protective equipment must be provided and used to reduce sound levels.

7.3.11.3 DOE 5480.10, Contractor Industrial Hygiene Program

The purpose of this order is to establish the requirements and guidelines applicable to DOE contractor operations for maintaining an effective industrial hygiene program to preserve employee health and well-being. Section 9b sets forth noise as one of the environmental factors and stresses to be included in the program.

7.3.11.4 City of Albuquerque Noise Control Ordinance (Ord. 21-1975)

This ordinance establishes acceptable noise levels for various activities within the City of Albuquerque, including construction of buildings and projects, vehicles, and aircraft. In addition, Subsection 9-9-12, *General Noise Regulation*, states that it shall be unlawful for any person to make any noise in excess of 50 dB(A), or 10 dB(A) above the ambient noise level, whichever is higher at any residential property line, unless otherwise provided in the ordinance.

7.3.11.5 Environmental Justice Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (EO 12898)

This EO directs each Federal agency to identify and address disproportionately high adverse human health or environmental impacts on minority and low-income populations resulting from an agency's programs, policies, or activities (59 FR 7629). The order further

directs each Federal agency to collect, maintain, analyze, and make information publicly available on the race, national origin, and income level of populations in areas surrounding facilities or sites expected to have a substantial environmental, human health, or economic effect on these populations. This requirement applies

when such facilities or sites become the subject of a substantial Federal environmental administrative or judicial action. Environmental justice impacts are being identified and addressed through the SWEIS, and the policies and data analysis requirements of this EO remain applicable to future actions at SNL/NM.