

## Major Environmental Statutes, Regulations, and Executive Orders for Long Term Stewardship at DOE Sites \*

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>Atomic Energy Act of 1954 (AEA)</b> 42 U.S.C. 2011-2259	All AEA activities at DOE facilities and other facilities with source, special nuclear, and byproduct materials.	AEA-Residual Site Hazards Management	Delegates authority for the control of nuclear materials to the DOE, the Nuclear Regulatory Commission (NRC), and the Environmental Protection Agency (EPA). Grants DOE the authority to take possession of and responsibility for nuclear materials under defined circumstances. Requires DOE to protect human health, safety, and the environment and authorizes DOE to establish, implement, and enforce protective standards with respect to activities under its jurisdiction. This requirement helps to establish long-term stewardship responsibility for residual hazards at DOE facilities. DOE Directives System establishes and implements DOE Orders under AEA. AEA addresses source, special nuclear, and byproduct material excepted from the Resource Conservation and Recovery Act (RCRA).
<u>AEA Provisions</u> <b>Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA),</b> Remedial Action Amendments of 1988, and Extension Act of 1996 42 U.S.C. 7901 et seq. 10 CFR Parts 40.27-40.28	Uranium and thorium mill tailings disposal sites, including UMTRCA Title I and Title II sites.	AEA- Residual Site Hazards Management	Establishes a program of assessment and remedial action at active and inactive mill operations to control and stabilize tailings in order to minimize radiation health hazards. The Act provides for contaminated groundwater cleanup and requires long term surveillance and maintenance for inactive uranium mill tailings sites. Disposal sites are classified under Title I or Title II. Title I addresses sites needing remedial action programs. Title II provides for licensing and regulation of sites that were still under active NRC license in 1978. EPA sets dose and stability standards and DOE and NRC regulations address related issues.
<u>UMTRCA Regulations</u> General License for Custody and Long Term Care of Residual Radioactive Material Disposal Sites Titles I & II 10 CFR Part 40.27 & 40.28	UMTRCA Title I and Title II Sites	AEA-Residual Site Hazards Management	NRC issues general licenses to DOE for the custody of and long-term care of uranium mill tailings sites, including the monitoring, maintenance, and emergency measures necessary to protect public health and safety for disposal sites under UMTRCA Title I and Title II.

\* Many of the statutes, regulations, Executive Orders, DOE orders and policies related to Long Term Stewardship can be found on the website of DOE's Office of Environmental Policy and Guidance (EH-41) at:

<http://tis.eh.doe.gov/oepa/>

- Statutes are listed in the **United States Code** (U.S.C.) at: <http://www4.law.cornell.edu/uscode/>

- Regulations are listed in the **Code of Federal Regulations** (CFR) at: <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html>

- Executive Orders (along with Rules, Proposed Rules, and Notices) are listed in the **Federal Register** at: [http://www.access.gpo.gov/su\\_docs/aces/aces140.html](http://www.access.gpo.gov/su_docs/aces/aces140.html)

- Policies (not included in the table) can be found on the New Federal Regulatory Initiatives website at: <http://homer.ornl.gov/oepa/rules/regulate.cfm>

**Long Term Stewardship** is: all activities necessary to ensure protection of human health and the environment following completion of cleanup, disposal, or stabilization at a site or a portion of a site. Long-term stewardship includes all engineered and institutional controls designed to contain or to prevent exposures to residual contamination and waste.

**LTS Management Categories:**

- Residual Site Hazards: engineered controls, institutional controls, and record-keeping activities

- Cultural Resources: sacred Native American sites and objects; other historic buildings and sites

- Natural Resources: threatened, endangered, and other types of marine and terrestrial species; wildlife and human habitat (i.e. water sources, land, and oceans)

- Land and Real Property: land transfers and sales, waste notifications, deeds, government access

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<u>UMTRCA Regulations</u> Disposal of High-Level Radioactive Wastes in Geologic Repositories 10 CFR Part 60	Geologic repositories for spent nuclear fuel and high level radioactive waste	AEA-Residual Site Hazards Management	Prescribes the NRC licensing process for DOE reception of nuclear material at geologic repositories. Requirements address the repository license application preparation, review, approval, and termination. Specifies requirements for record-keeping and information management. The license application is required to describe engineered barriers and institutional controls for any proposed geologic repository.
<u>UMTRCA Regulations</u> Post-Closure Observation and Maintenance 10 CFR Part 61.29	DOE disposal of greater than Class C low level radioactive waste in an NRC-licensed facility	AEA-Residual Site Hazards Management	Following the completion of the closure of a licensed low-level radioactive waste disposal facility authorized under § 61.28, the licensee (DOE) shall observe, monitor, and carry out necessary maintenance and repairs at the disposal site until the license is transferred by the Commission in accordance with § 61.30. The licensee is responsible for the low-level radioactive waste disposal site for 5 years. Time periods may be extended or restricted for post-closure observation and maintenance as part of the site-specific closure plan.
<u>AEA Provisions</u> 42 U.S.C. 2022 42 U.S.C. 2113	Byproduct material (e.g., uranium mill tailings) including UMTRCA Title I and Title II sites.	AEA-Residual Site Hazards Management	Prior to the termination of any NRC license, ownership of any byproduct material which resulted from licensed activity must be transferred to the DOE or to the State in which the activity occurred, if the State exercises its option under the Act to acquire land that was used for the disposal of byproduct material. Either DOE or the State then becomes the long-term custodian for the disposal facility. Regulations established under provisions of the Act require long-term stewardship of inactive uranium mill tailings disposal sites.
<u>AEA Provisions and Regulations</u> 42. U.S.C. 2297h-5(d) 42. U.S.C. 2297h-7(a) 10 CFR Part 76	Privatized uranium enrichment facilities formerly operated by DOE	AEA-Residual Site Hazards Management	DOE is solely responsible for the payment of the costs of decontamination and decommissioning, response actions, or corrective actions with respect to conditions existing <i>before</i> the privatization date for uranium enrichment facilities (such as gaseous diffusion plants). Liabilities arising out of the operation of the plants and for the disposal of depleted uranium generated prior to the privatization date are also the responsibility of DOE. Once all remediation has occurred, DOE is responsible for long term stewardship over the entire site.
<u>AEA Amendment</u> <b>Low Level Radioactive Waste Policy Act of 1980</b> 42 U.S.C. 2021 et seq.	Low-level radioactive waste sites	AEA-Residual Site Hazards Management	This Act amends the AEA to specify that the Federal Government is responsible for the disposal of low-level radioactive waste that is generated by its activities. The States are responsible for the disposal of other low-level radioactive waste. This restricts agreement state licensees from requesting 151(b) transfers under the Nuclear Waste Policy Act. (Pg. 3)
<u>AEA Amendment and Regulations</u> <b>Low Level Radioactive Waste Policy Amendments Act of 1985</b> 42 U.S.C. 2021 et seq.	Federal and non-federal facilities	AEA-Residual Site Hazards Management	The 1985 amendments to the Act provide that federally-generated waste which is disposed of at non-Federal facilities shall be subject to the same conditions as waste that is not generated by Federal activities. The amendments create regulations specifying disposal requirements in 10 CFR 61.
<u>AEA Amendment and Regulations</u> <b>Low Level Waste Policy Act Amendments of 1989</b> 10 CFR Parts 61.2 and 61.29	Federal and non-federal facilities	AEA-Residual Site Hazards Management	Amends NRC regulations in 10 CFR 61.2 to include the DOE for licensing purposes. Under these amendments, “greater than Class C” low-level radioactive waste must be disposed of by DOE in a facility licensed by NRC. Post-closure care requirements for NRC-licensed low-level waste disposal facilities are established in 10 CFR 61.29

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<u>AEA/AEC Program</u> <b>Formerly Utilized Sites Remedial Action Program of 1974 (FUSRAP)</b> FY 1998 Energy and Water Appropriations Bill Pub. L. 105-67	Federal Facilities- Formerly administered by DOE's Oak Ridge Operations Office; currently under jurisdiction of the Grand Junction Office	AEA-Residual Site Hazards Management	FUSRAP is a national remediation program established in 1974 to identify, investigate, and clean up or control sites where residual radioactivity exceeding current guidelines remains. These sites (mostly commercial) are from the early years of the nation's atomic energy and weapons program. FUSRAP encompasses 45 sites in 14 states. Management Action Process (MAP) documents describing remediation strategies, such as environmental assessments and cleanup at sites, are used to clarify and involve stakeholders in the remedy selection and decision-making process. Until October of 1997, DOE worked within the Environmental Management Advisory Board (EMAB) to determine cleanup processes. EMAB includes regulators, state and local governments, citizen groups, labor unions, and scientists. The FY 1998 Energy and Water Appropriations Bill transferred FUSRAP program management responsibilities to the U.S. Army Corps of Engineers (COE).
<u>AEA Related Provisions</u> <b>Energy Reorganization Act of 1974</b> 42 U.S.C. 5801	Specific classes of DOE facilities	AEA-Residual Site Hazards Management	The Act separates the licensing functions from the energy development functions of the Atomic Energy Commission (AEC) by creating the NRC and the Energy Research and Development Administration (ERDA, which later became the DOE).
<u>AEA Related Provisions</u> <b>Nuclear Waste Policy Act of 1982 (NWPA)</b> 42 U.S.C. 10101 et seq. 42 U.S.C. 10222(b)	Geologic repositories for spent nuclear fuel and high level radioactive waste	AEA-Residual Site Hazards Management	Authorizes DOE to take possession of and develop geologic repositories for the permanent disposal of spent nuclear fuel and high level radioactive waste generated by civilian and defense nuclear activities. Establishes a program of restoration, development, and demonstration of the disposal of high-level radioactive and spent nuclear materials. Engineered barriers and institutional controls are established at all geologic repositories. The Act also establishes a Nuclear Waste Fund within the Treasury Department.
<u>AEA Related Provisions</u> Nuclear Waste Policy Act of 1982 42 U.S.C. 10141(a) 42 U.S.C. 10141(b)	Geologic repositories for spent nuclear fuel and high level radioactive waste	AEA-Residual Site Hazards Management	Subsection (b) authorizes NRC to promulgate criteria that will apply for the licensing, closure and decommissioning of repositories. Such criteria shall provide for a system of multiple barriers in the design of the repository and shall include restrictions on the ability to retrieve the solidified high-level radioactive waste and spent fuel placed in the repository that NRC deems appropriate. Such requirements and criteria shall not be inconsistent with any comparable standards promulgated by EPA under subsection (a). Subtitle D, §151(b)
<u>AEA Related Provisions</u> Nuclear Waste Policy Act of 1982 42 U.S.C. 10171(b) [NWPA Subtitle D, §151(b)] 10 CFR 20.1403	Low-level radioactive waste sites	AEA-Residual Site Hazards Management	DOE has authority to assume title and custody of low-level radioactive waste and the land on which such waste is disposed of, upon request of the landowner and in compliance with NRC regulations for decommissioning to restricted use following the termination of the NRC disposal license. DOE then assumes long-term stewardship responsibility for the property.
<u>AEA Related Provisions</u> Nuclear Waste Policy Act of 1982 42 U.S.C. 10171(c) [NWPA, Subtitle D, §151(c)]	Low-level radioactive waste sites	AEA-Residual Site Hazards Management	DOE has authority to assume ownership and custody of low level radioactive waste sites when the waste is the result of a licensed activity to recover zirconium, hafnium, and rare earth metals from source material.

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<u>AEA Provisions</u> 42 U.S.C. 2201(g), [AEA §161(g)]	DOE real property managers	AEA-Land and Real Property Management	DOE can transfer real property under Section 161(g) without the involvement of the General Services Administration (GSA), as long as the real property was acquired under the Act and the disposal has a programmatic effect with respect to the Act.
<b>Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA/Superfund)</b> 42 U.S.C. 9601 et seq.	All CERCLA sites	CERCLA-Residual Site Hazards; Natural Resource; and Land and Real Property Management	Establishes federal authority to regulate and respond to hazardous substance releases and emergencies through removal and remedial actions. Provides for the cleanup and long-term stewardship of inactive hazardous waste sites. Facilities with contaminated sites regulated under CERCLA are required to conduct long-term surveillance and maintenance of engineered controls. Remedial actions must comply with federal and state environmental requirements that are legally “applicable or relevant and appropriate requirements” (ARARs) which specifically address CERCLA site issues such as hazardous substances and releases. ARARs frame cleanup goals and protective remedies.
<u>CERCLA Amendment</u> <b>Department of Energy Organization Act of 1977</b> 42 U.S.C. 7256	DOE sites and Federal facilities leased to others	CERCLA-Land and Real Property Management	The Act creates the DOE by consolidating the Energy Research and Development Administration (ERDA), the Federal Energy Administration (FEA), the Federal Power Commission (FPC) and part of the Department of Interior (DOI). It charges the DOE with the responsibility to address environmental, health, safety, socioeconomic, institutional, and control technology development issues in an integrated manner. DOE is the mechanism for coordinating environmental impact assessments and environmental impact statements for energy, resource, and technology-related activities. DOE can lease excess property for up to five years under § 649 of the Act. Leasing under the DOE Organization Act is more flexible than under the Atomic Energy Act, which has stricter leasing requirements. Although the five year requirement may pose an undesirable restriction on potential lessees, the facilities need only be under DOE custody.
<u>CERCLA Amendment</u> <b>Hall Amendment (Section 3154 of the National Defense Authorization Act of 1994)</b> 42 U.S.C. 7256	DOE sites and Federal facilities leased to others	CERCLA-Land and Real Property Management	Amends Section 646 of the DOE Organization Act of 1977 so that DOE is allowed to lease excess and unneeded property for up to ten years at DOE facilities that are to be closed or reconfigured. Provides greater certainty to tenants interested in longer-term leases.
<u>CERCLA Provisions and Regulations</u> <b>National Contingency Plan (NCP)</b> 42 U.S.C. 9605 40 CFR 300.430	CERCLA Areas of Contamination (AOCs)	CERCLA-Residual Site Hazards Management	The NCP instructs EPA to compile the National Priorities List (NPL) for the most hazardous sites in the nation. CERCLA Section 121(b) requires that both short-term and long-term health and environmental risks (and potential risks) are considered when a remedial action is being selected by NPL sites. Specifies nine criteria to be used to compare and evaluate proposed remedial alternatives during the remedy selection process.
<u>CERCLA Provisions and Regulations</u> National Contingency Plan (NCP) 42 U.S.C. 9605; Trustees for Natural Resources 40 CFR Part 300.600	Applies to CERCLA actions on Federal Lands	CERCLA-Natural Resource Management	For natural resources located on, over, or under land administered by the DOE, the natural resources trustee under the NCP is the Secretary of Energy. The Secretary will act pursuant to CERCLA §107(f), CWA §311(f)(5), and OPA §1006 to protect resources. A natural resource is defined as: land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other resources belonging to, managed by, or controlled by the DOE.

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<u>CERCLA Amendment</u> <b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b> 42 U.S.C. 9601 et seq. Pub.L.99-499	Federal and private facilities	CERCLA-Residual Site Hazards Management	Expands the Federal government's response authorities and clarifies that Federal facilities are subject to the same CERCLA requirements as private industry, although Federal facilities do not receive money from Superfund. Revises the Hazard Ranking System (HRS). Title III authorizes the Emergency Planning and Community Right to Know Act of 1986.
<u>CERCLA-Related Amendment &amp; Regulations</u> <b>Emergency Planning and Community Right to Know Act of 1986 (EPCRA)</b> 42 U.S.C. 11001-11050 SARA Title III, Subtitles A, B, & C 40 C.F.R. 355	State and Federal Facilities	CERCLA-Residual Site Hazards Management	Requires that the local emergency planning districts are notified about materials that are stored at and released from sites. Establishes mechanisms for responses to unplanned hazardous releases. Establishes reporting requirements for hazardous and toxic substances and provides for civil, criminal, and administrative penalties for reporting violations. The rights of owners and operators are restricted from making trade secrecy claims in EPCRA reports. Enforcement actions can be taken by citizens, states, and emergency planning entities to promote a "good neighbor" relationship. The Pollution Prevention Act of 1990 requires the EPA to promote source reduction practices in other agencies.
<u>CERCLA Regulations</u> <b>Executive Order 12856</b>	Federal agencies and federal facilities	CERCLA-Residual Site Hazards Management	Directs federal agencies and facilities to comply with EPCRA. DOE facilities are potential reporters under EPCRA if they meet reporting thresholds.
<u>CERCLA Regulations</u> EPCRA Section 313: Toxic Chemical Release Forms 42 U.S.C. 11023	State and Federal Facilities	CERCLA-Residual Site Hazards Management	Established the Toxic Chemical Release Inventory (TRI) which requires federal facilities to report toxic chemical releases specifically.
<u>CERCLA Provisions and Regulations</u> Department of Interior (DOI) Rules: <b>Natural Resource Damage Assessments (NRDA)</b> 40 CFR 300.305(e) 43 CFR 11.32(a)(2) (iii)	All releases of hazardous substances, pollutants, and contaminants as defined by CERCLA	CERCLA-Natural Resource Management	CERCLA directed the Department of the Interior (DOI) to prepare rules for Natural Resource Damage Assessments for hazardous waste sites and CERCLA emergency responses. The Preassessment Phase includes the notification of trustees, preliminary data collection, and a determination of the likelihood of a successful damage claim. The Assessment Plan confirms the exposure of trust resources to released or discharged material and decides procedures to be used. (Type A assessments are more simple; Type B address individual cases.) Injuries are then assessed and appropriate restoration actions determined. Public review ensues. The Post Assessment Phase requires a report and a final restoration plan. Federal State and Tribal trustees are supposed to cooperate with each other and PRP's.
<u>CERCLA Implementation</u> <b>Executive Order 12580 of 1987</b> (as modified by Executive Order 13016 of 1996)	Federal Agencies	CERCLA-Residual Site Hazards Management	Delegates to Federal departments and agencies the responsibility for implementing remedial actions for hazardous releases or threatened releases that are not on the National Priorities List (NPL). Clarifies that federal agencies and departments are responsible for waste removal actions when releases come from facilities that are under the jurisdiction of a Federal agency or department. DOE is the lead agency under CERCLA that conducts remedial reviews every five years at DOE sites.

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<u>CERCLA Provisions</u> 42 U.S.C. 9620 [CERCLA §120(e)(2)]	Applies to all CERCLA sites at Federal facilities	CERCLA-Residual Site Hazards Management	Section 120(e) requires DOE to enter into an interagency agreement with EPA 180 days after the completion of the remedial investigation/feasibility study (FI/FS) for a CERCLA site. DOE usually negotiates an interagency agreement (Federal Facility Agreement or FFA) with EPA and the State early in the CERCLA process. The FFAs govern how DOE will implement investigation and cleanup of CERCLA sites and issue Records of Decision (RODs) for these sites. CERCLA RODs are required to describe the implementation of engineered controls and institutional controls. Remedial milestones for DOE compliance with the FFA are set and re-evaluated annually.
<u>CERCLA Provisions</u> 42 U.S.C. 9620 [CERCLA §120(e)(3)]	Applies to all CERCLA sites	CERCLA-Residual Site Hazards	Each Federal Agency shall include a review of alternative agency funding in its annual budget submissions to Congress which could be used to provide for the costs of remedial action..
<u>CERCLA Provisions</u> Required Actions for Property Transferred by Federal Agency 42 U.S.C. 9620 [CERCLA §120(h)(1), §120(h)(2), and §120(h)(3)]	Applies to Federal land transferred under CERCLA	CERCLA-Land and Real Property Management	Contracts to transfer Federal real property must contain a notice of the type and quantity of any hazardous substances known to have been stored or released on the property. Deeds for transferred Federal real property must contain a description of the type and quantity of any hazardous substances known to have been stored or released on the property, time at which the release, storage or disposal took place and any remedial action taken, a covenant warranting that remediation occurred prior to transfer and any subsequent remediation will be conducted by the U.S., and a clause granting access to the U.S. to perform remedial or corrective action.
<u>CERCLA Provisions and Regulations</u> Reporting Hazardous Substance Activity when Selling or Transferring Federal Real Property 40 CFR Part 373 Regulations implement CERCLA §120(h)(2)	Federal real property transfers	CERCLA-Land and Real Property Management	Requires agencies to include notices within any agency contract regarding the sale or other transfer of real property at which any hazardous substance was stored for one year or more, known to have been released, or disposed of. The agency head must include these notices regarding: the type and quantity of the hazardous substance, and the time at which storage, release or disposal took place, to the extent that the information is available based on a complete search of agency files.
<u>CERCLA Provisions</u> Contents of Deeds – General and Covenant Requirements 42 U.S.C. 9620 [CERCLA § 120(h)(3)(B) and §120(h)(3)(C)]	Applies to Federal land transferred under CERCLA	CERCLA-Land and Real Property Management	Covenants required for the transfer or sale of real property must state that “all remedial action necessary to protect human health and the environment ... has been taken before the date of such transfer.” Covenants required for the transfer or sale of property must grant the U.S. government access to the property in case remedial or corrective action is required.
<u>CERCLA Provisions</u> Deferral of Remedial Action 42 U.S.C. 9620 [CERCLA §120(h)(3)(C)]	Federal land transferred under CERCLA prior to completion of remedial action.	CERCLA-Land and Real Property Management	Federal real property may, under certain circumstances, be transferred to other entities when remedial actions are incomplete. The agency is required to provide for any necessary restrictions on the use of the property in order to ensure the protection of human health and environment, and must submit a budget request that adequately addresses the completion of all necessary response actions, subject to Congressional authorizations and appropriations.

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<u>CERCLA Provisions</u> Deferral of Remedial Action 42 U.S.C. 9620[CERCLA §120(h)(5)]	Federal land leased under CERCLA prior to completion of remedial action.	CERCLA-Land and Real Property Management	Requires that States are notified before the agency enters into any lease of sites that are being closed, that will be encumbered by a lease for more than one year beyond the closure date of the site, or that are contaminated or were formerly contaminated. Notification shall include the length of the lease, the lessee, and allowable uses under the lease.
<u>CERCLA Amendment</u> <b>Community Environmental Response Facilitation Act of 1992 (CERFA)</b> Pub. L. 102-426	Federal activities on any real government property	CERCLA-Land and Real Property Management	Requires the federal government to identify portions of real property where no hazardous substance has been disposed of, stored, or released. Facilitates property transfers for economic redevelopment by expediting the sale of excess property before the entire facility is cleaned. Section 4 amends Section 120(h)(3) of CERCLA to establish the extent of remedial action necessary to protect the public and the environment where hazardous substances were disposed of, stored, or released.
<b>National Environmental Policy Act of 1969</b> 42 U.S.C. 4321 et seq.	All major Federal actions by Federal agencies.	NEPA-Natural Resource Management	Federal agencies are required to prepare detailed environmental impact analyses to address the environmental effects of major Federal actions that could significantly affect the environment. Environmental Impact Statements (EISs) and Environmental Assessments (EAs) are completed to address these environmental risks.
<u>NEPA Related Provisions</u> <b>Executive Orders 11988 and 11990</b> Floodplain Management and Protection of Wetlands Regulations: 10 CFR Part 1022.1	Federal agencies	NEPA-Natural Resource Management	Directs agencies to avoid any short or long-term adverse impacts in floodplains or wetlands whenever there is a practicable alternative. Federal actions must attempt to minimize the destruction, loss, or degradation of wetlands. Floodplain and wetland assessments must be developed before federal actions occur. Assessments must describe the proposed action, its effects, and possible alternatives. A public review and a Federal and State commenting period must follow the submittal of the assessment to ensure proper protective actions.
<u>NEPA Related Provisions</u> <b>Executive Order 11514, as amended by Executive Order 11991</b> Protection and Enhancement of Environmental Quality	Federal agencies	NEPA-Natural Resource Management	Requires Federal agencies to monitor and control their activities to protect and enhance the quality of the environment. Contains requirements for Federal agencies to include the public in the decision-making process for agency actions. (The NEPA implementing regulations for DOE (10 CFR 1021) and DOE Order 451.1A address this order through implementation of Council of Environmental Quality (CEQ) regulations in 40 CFR 1500-1508.)
<u>NEPA Related Provisions</u> <b>Intergovernmental Cooperation Act of 1968 and Executive Order 12372</b> 31 U.S.C. 6506; Intergovernmental Review of DOE Programs and Activities: Regulations: 10 CFR 1005	DOE activities	NEPA-Natural Resource Management	Section 401 of the Intergovernmental Cooperation Act of 1968, Executive Order 12372, and the associated regulations establish an intergovernmental partnership by involving state, regional, and local governments in the review of proposed NEPA federal actions and federal financial assistance.
<u>DOE NEPA Regulations</u> 10 CFR Part 1021	All major Federal actions by DOE	NEPA-Land and Real Property Management	This Part contains implementing regulations for the DOE NEPA Program. DOE is required to conduct a NEPA analysis for major DOE actions, including the transfer of real property and the construction, operation, and decommissioning of facilities. NEPA can be used to develop site-specific land use plans and long-term stewardship plans for DOE sites.

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<u>NEPA Regulations</u> 40 CFR Part 1500-1508	All major Federal actions by Federal agencies	NEPA-Natural Resource Management	This Part contains implementing regulations for the Council of Environmental Quality (CEQ) NEPA Program. These regulations form the basis for DOE NEPA regulations in 10 CFR 1021.
<u>NEPA Related Provisions</u> <b>Executive Order 12898</b> Federal Actions to Address Environmental Justice in Minority and Low-Income Populations	Federal agencies	NEPA-Residual Site Hazards Management	Directs Federal agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health or environmental effects on minority and low-income populations resulting from agency programs, policies, and activities. When a site is subject to a substantial Federal environmental administrative or judicial action, agencies must provide information on the race, national origin, income level, and other data involving the human population surrounding a facility or a site if the site's contaminants are expected to substantially affect human health, the environment, or the economy.
<b>Resource Conservation and Recovery Act (RCRA) of 1976</b> (Amended the Solid Waste Disposal Act of 1965, Pub. L. 89-272) 42 U.S.C. 6901 et seq.	Owners/operators of solid waste facilities, or solid waste generators, transporters, or disposers.	RCRA-Residual Site Hazards Management	RCRA intends to protect human health and the environment, reduce or eliminate the generation of hazardous and non-hazardous solid wastes, and conserve energy and natural resources through resource recovery and waste minimization. Establishes a "cradle to grave" system for managing wastes from the point of origin to final disposal (with post-closure care). EPA can delegate program oversight and enforcement to states with RCRA authorization.
<u>RCRA Amendment &amp; Regulations Hazardous and Solid Waste Amendments of 1984 (HSWA)</u> Pub. L. 98-616 42 U.S.C. 6901 et seq. 40 CFR 261 & 268 40 CFR 264/265, Subparts K & N	Federal and non-federal facilities	RCRA-Residual Site Hazards Management	Expands scope and requirements of RCRA. Creates the Land Disposal Restrictions (LDR) Program prohibiting the land disposal, dilution, and storage of untreated wastes. Requires minimum technology standards, such as liners and leachate collection systems, for surface impoundments, waste piles, land treatment units, and landfills in order to prevent the migration of hazardous materials into the groundwater. Grants EPA the authority to require corrective actions for hazardous waste releases from facilities seeking RCRA permits, regardless of when the waste was placed within the unit.
<u>RCRA Amendment</u> <b>Federal Facilities Compliance Act of 1992</b> 42 U.S.C. 6961 et seq. Pub. L. 102-386	Federal facilities	RCRA-Residual Site Hazards Management	Waives sovereign immunity with respect to RCRA for Federal facilities. DOE is subject to fines and penalties for RCRA violations. DOE must follow Federal, state, interstate, and local government hazardous and solid waste management requirements.
<u>RCRA Regulations</u> RCRA Criteria for Classification of Solid Waste Disposal Facilities and Practices 40 CFR Part 257	Non-hazardous solid waste and sewage sludge disposal units.	RCRA-Residual Site Hazards Management	Disposal standards in this Subpart require groundwater monitoring throughout the active life of the unit plus 30 years (or an alternative schedule) and must carry out corrective measures if contamination in the unsaturated zone or on the surface is detected. RCRA disposal standards do not apply to source, special nuclear, or byproduct material.

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<u>RCRA Provisions and Regulations</u> Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (USTs) 40 CFR 280	Three to five million underground storage tanks (USTs) in U.S.	RCRA-Residual Site Hazards Management	Establishes program to prevent USTs from leaking. Regulates the product, rather than the hazardous waste that is being stored. Radioactive materials and waste stored in USTs are regulated by Subtitle I, except those tanks containing radioactive materials that are subject to AEA requirements, or mixed waste regulated by RCRA Subtitle C. EPA establishes the standards for installation, operation, release detection, corrective action, repair, and closure.
<u>RCRA Regulations</u> Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities 40 CFR Part 264	Hazardous waste treatment, storage, and disposal facilities.	RCRA-Residual Site Hazards Management	Standards address hazardous wastes that are placed at a site after November 19, 1980 or wastes that are placed in a disposal unit for the purpose of storage after remediation is complete. Standards regulate the placement of a cap over such waste. Following closure, the owner or operator is required to perform post-closure care and groundwater monitoring activities under Part 264 Subparts.
<u>RCRA Regulations</u> Releases from Solid Waste Management Units RCRA Groundwater Monitoring 40 CFR Part 264.90-101 Subpart F 40 CFR Part 265.90-94 Subpart F	RCRA hazardous waste units and hazardous waste units that closed under interim status	RCRA-Residual Site Hazards Management	Owners or operators of hazardous waste surface impoundments, landfills, and land treatment facilities are required to implement a ground-water monitoring program capable of determining the facility's impact on ground water quality. The owner or operator must install, operate, and maintain a groundwater monitoring system during the active life of the facility, and for disposal facilities, during the post-closure care period as well.
<u>RCRA Regulations</u> Closure and Post Closure Monitoring and Maintenance 40 CFR Part 264.110-120 Subpart G 40 CFR Part 265.110-121 Subpart G	RCRA-permitted hazardous waste units and hazardous waste units that closed under RCRA interim status	RCRA-Residual Site Hazards Management	Post-closure operation of a RCRA hazardous waste disposal unit must be conducted under a post-closure permit or another enforceable document. Regulations require a survey plat to be prepared and submitted to the local zoning authority or other authority with jurisdiction over local land use, and to EPA or the State. The plat must include a notice and a deed restriction guarding against disturbances to the unit. Post-closure care includes monitoring, security, and access and use restrictions. Care must be maintained for 30 years, although the post-closure period can be lengthened by EPA. Post closure care activities also include maintenance activities to ensure the integrity of any cap or final cover or containment system. Post-closure use of the property where wastes remain after final closure must not be allowed to disturb the integrity of the final cover, liner, or any other components of the containment system, or the function of the facility's monitoring systems, unless such activity is approved by EPA. Upon completion of the post-closure period, a certification of compliance with the approved post-closure plan must approved by EPA or the State.
<u>RCRA Regulations</u> Delay of Closure for Hazardous Waste Management Facilities 40 CFR 264.113 and 40 CFR 265.113	Hazardous and mixed radioactive waste facilities	RCRA-Residual Site Hazards Management	Sets conditions under which owners and operators of hazardous and mixed radioactive waste (RMW) management facilities can delay closure to accept non-hazardous wastes.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<u>RCRA Regulations</u> Post Closure Notification 40 CFR Part 264.119 40 CFR Part 265.119	RCRA unit post-closure and units closed under interim status	RCRA-Residual Site Hazards Management and Land and Real Property Management	No later than 60 days after the certification of closure of a hazardous waste disposal unit, the owner or operator must submit records to the local zoning authority or the authority with jurisdiction over local land use, and the EPA or the State. The record must include the type, location, and quantity of hazardous wastes disposed of within each facility disposal unit. State law requires the owner or operator to record a notation on the deed to the facility's property (or on some other instrument which is normally examined during a title search) that tells any future purchaser of the property that the land has been used for hazardous waste management. The notation shall state that potential uses of the site are restricted under 40 CFR Subpart G regulations. It shall also include the survey plat and the records of the type, location, and quantity of hazardous wastes disposed of within each facility disposal unit that were filed with EPA and local zoning or jurisdictional authorities.
<u>RCRA Regulations</u> Standards for Owners and Operators of Hazardous Waste Surface Impoundments 40 CFR Part 264.228 Subpart K	RCRA hazardous waste left in place in surface impoundments	RCRA-Residual Site Hazards Management	If waste residues or contaminated materials are left in place at final closure, compliance must be ensured for all post-closure requirements in Subpart G, and groundwater monitoring requirements in Subpart F. Run-on and run-off must also be prevented from eroding or otherwise damaging the final cover.
<u>RCRA Regulations</u> Standards for Owners and Operators of Hazardous Waste Land Treatment Facilities 40 CFR Part 264.280 Subpart M	RCRA hazardous waste left in place in land treatment facilities	RCRA-Residual Site Hazards Management	During the post-closure period, the owner or operator must continue all operations necessary to enhance the degradation and transformation of hazardous constituents and to ensure that their immobilization is sustained. The owner or operator must maintain the vegetative cover, run-on control system, and run-off management. The owner or operator must also control wind dispersal, continue to comply with any prohibitions or conditions concerning the growth of food-chain crops, and continue groundwater monitoring.
<u>RCRA Regulations</u> Standards for Owners and Operators of Hazardous Waste Landfills 40 CFR Part 264.310 Subpart N	RCRA hazardous waste left in place in landfills	RCRA-Residual Site Hazards Management	Requires Subpart G post-closure care activities. The owner or operator must maintain the integrity and effectiveness of the final cover; continue to operate the leachate collection and removal system; maintain and monitor the leak detection system; maintain and monitor the groundwater monitoring system; prevent run-on and run-off from eroding or otherwise damaging the final cover; and protect and maintain benchmarks.
<b>American Antiquities Preservation Act of 1906 (AAPA)</b> 16 U.S.C. 431-433	Federal agencies	Cultural Resource Management	Protects historic and prehistoric ruins, monuments, and antiquities, including paleontological resources, on Federally-controlled lands. Provides a criminal penalty of \$500 and/or imprisonment for 90 days for the looting and vandalism of these sites.
<b>National Historic Preservation Act of 1966, as amended (NHPA)</b> 16 U.S.C. 470 et seq.	Federal lands – certain requirements of the NHPA Section 110 may be waived for reasons of national security under 36 CFR 78	Cultural Resource Management	In addition to NEPA requirements, DOE must consult with the Advisory Council on Historic Preservation and the State Historic Preservation Office (SHPO) if any proposed action could impact a historic property resource. Section 106 of the Act requires that Federal agencies ensure that the provisions of the NHPA are implemented with respect to agency actions. Section 110 requires historic preservation to be fully integrated into the ongoing programs of Federal agencies. Agencies are required to establish a program to locate, identify, and nominate to the National Register of Historic Places all of the historic properties under their control, including surface and subsurface resource sites.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>Executive Order 11593</b> Protection and Enhancement of Cultural Environment 36 F.R. 8921 (May 13, 1971)	Federal agencies	Cultural Resource Management	Requires Federal agencies to direct their policies and programs in a manner that preserves, restores, and maintains Federally-owned sites, structures, and objects of historical or archeological significance. This Order has been substantially incorporated into the 1980 Amendments to the National Historic Preservation Act (NHPA).
<u>NHPA Regulations</u> National Register of Historic Places, Determination of Eligibility for Inclusion, and National Historic Landmarks Program 36 CFR Parts 60, 63, 65	Historic Sites and Cultural Resources on DOE Lands	Cultural Resource Management	Establishes the National Register of Historic Places and National Historic Landmarks program. Provides for procedures to determine historic eligibility. Cultural resources identified on DOE Lands are to be evaluated based on these National Register criteria.
<u>NHPA Regulations</u> Curation of Federally-Owned, Administered Archeological Collections 36 CFR Part 79	Federally owned and administered cultural resources	Cultural Resource Management	Establishes curation guidelines and procedures for Federally owned and administered cultural resource collections and records.
<u>NHPA Regulations</u> Protection of Historic and Cultural Properties Advisory Council on Historic Preservation 36 CFR Part 800	Federal agencies	Cultural Resource Management	Implements Section 106 of the National Historic Preservation Act. Requires Federal agencies to take into account the effects of their actions on historic properties and provides the Advisory Council on Historic Preservation to comment on such actions. Section 106 review is to be coordinated with NEPA.
<b>Archeological and Historic Preservation Act of 1974 (AHPA)</b> 16 U.S.C. 469 - 469c-2	Federal agencies	Cultural Resource Management	Protects sites of prehistoric, historic or archeologic importance from Federal actions, such as land modification activities.
<b>Archeological Resources Protection Act of 1979 (ARPA)</b> 16 U.S.C. 470aa, et seq.	Federal agencies	Cultural Resource Management	Establishes new procedures for Federal agencies to issue permits for any excavation or removal of archeological resources from Federal lands or Indian lands. Establishes requirements in addition to those of the AHPA. Requires Agencies to promulgate regulations and to plan and conduct surveys of archeological resources under the control of the agency. Provides for felony-level penalties for serious violations, and civil penalties and forfeiture of vehicles and equipment for lesser violations. Section 4 requires the notification of affected Native American Tribes prior to issuance of any permit that may result in harm to Native American cultural resources on Federal lands.
<u>ARPA Regulations</u> Protection of Archaeological Resources 43 CFR Part 7	Federal agencies	Cultural Resource Management	Regulations in this part implement the Archeological Resources Protection Act of 1979 by establishing the uniform procedures to be followed by all Federal land managers in providing protection for archaeological resources, located on public lands and Indian lands of the United States.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>Federal Indian Trust Responsibility</b> (Case law, including: <i>Seminole Nation v. United States</i> , 316 U.S. 286, 1942)	Federal agencies	Cultural Resource Management	This is a legal obligation under which the US “has charged itself with moral obligations of the highest responsibility and trust” toward Indian Tribes. It is a legally enforceable fiduciary obligation, on the part of the US, to protect tribal lands, assets, resources, and treaty rights of American Indian and Alaska Native Tribes. In several cases discussing the trust responsibility, the Supreme Court has used language suggesting that it entails legal duties, moral obligations, and the fulfillment of understandings and expectations that have arisen over the entire course of dealings between the US and the Tribes.
<b>American Indian Religious Freedom Act of 1978</b> 42 U.S.C. 1996, et seq.	Federal agencies	Cultural Resource Management	Requires Federal agencies to avoid interfering with Tribal access to Native American sacred sites and traditional resources that are integral to Tribal religious practices.
<b>Executive Order 13007</b> Indian Sacred Sites 61 F.R. 26771 (May 29, 1996)	Federal agencies	Cultural Resource Management	Directs Federal agencies to take measures to protect and preserve American Indian Tribes’ religious practices. Federal agencies shall, to the extent practicable and permitted by law and when consistent with essential agency functions, accommodate access to and ceremonial uses of sacred sites by Tribal religious practitioners. The order also states that Federal agencies will comply with Presidential direction to maintain government-to-government relations with Tribal governments.
<b>Executive Order 13175</b> Consultation and Coordination with Indian Tribal Governments 65 F.R. 67249 (November 9, 2000)	Federal agencies	Cultural Resource Management	Requires DOE to follow specific criteria for policies with Tribal implications. DOE must ensure Tribal input and increase opportunities for using flexible policy approaches for Tribes with regard to proposed waivers of statutory or regulatory requirements.
<b>Native American Graves Protection and Repatriation Act of 1990 (NAGPRA)</b> 25 U.S.C. 3001 -3013	Federal lands	Cultural Resource Management	Establishes the means by which Native Americans can request the return of human remains and other objects held by Federal agencies or within Federally-assisted museums and institutions. Establishes provisions for “reasonable efforts” of protection to be taken when Native American remains and cultural objects are inadvertently discovered.
<u>NAGPRA Regulations</u> Protection of Native American Graves 43 CFR Part 10	Management of Federal Lands	Cultural Resource Management	These regulations implement the Native American Graves Protection and Repatriation Act of 1990, and establish procedures for the identification and appropriate disposition of human remains, funerary objects, sacred objects, or objects of cultural patrimony that are in Federal possession or control.
<b>Federal Property and Administrative Services Act of 1949</b> 40 U.S.C. 483	Federal lands	Land and Real Property Management	Establishes policies and procedures for management of Federal property.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>National Defense Authorization Act of 1994 (NDAA)</b> 42 U.S.C. 7256(c) Section 3154: Hall Amendment to Section 646(e)(1) of the DOE Organization Act	Managers of DOE facilities and sites leased to others	Land and Real Property Management	Allows DOE to lease temporarily unneeded or excess property at DOE facilities that are to be reconfigured or closed. Under agreement with EPA, DOE is responsible for the health and safety of the public and continued environmental monitoring on the property. Prior to entering into any lease, DOE is required to obtain concurrence of EPA (for NPL sites) or the State to determine whether the environmental conditions of the property are such that leasing the property is safe and protective of public health and the environment. Leases may last for up to ten years with an option to renew if the Secretary determines that a renewal is in the public interest or promotes national security.
<b>National Defense Authorization Act of 1996 (NDAA)</b> Pub. L. 104-201, 42 U.S.C. 7274(k)	Defense Nuclear Facilities	Land and Real Property Management	Section 3153 of the Act requires DOE to develop future use plans for Defense Nuclear Facilities, including the Savannah River Site, Hanford Site, Idaho National Engineering and Environmental Laboratory, and the Rocky Flats Environmental Technology Site.
<b>National Defense Authorization Act of 1998 (NDAA)</b> Pub. L. 105-85, §3158, 42 U.S.C. 7256	DOE Facilities	Land and Real Property Management	Requires DOE to develop regulations for the sale or lease of real property at DOE facilities. Regulations could include requirements for long-term stewardship for sale or lease of DOE real property.
<u>NDAA Regulations</u> Transfer of Real Property at Defense Nuclear Facilities for Economic Development 10 CFR Part 770	DOE Defense Nuclear Facilities	Land and Real Property Management	Establishes a process by which DOE can dispose of real property at Defense Nuclear Facilities for reuse for economic development [Section 3158 the National Defense Authorization Act of 1998 (P.L. 105-85)]. DOE Field Office Managers may consider development proposals from a potential lessee or purchaser of real property. These regulations also provide the Secretary with discretionary authority to indemnify transferees of real property from future liability, and they set forth indemnification procedures.
<b>General Services Administration (GSA) Regulations:</b> Utilization and Disposal of Real Property GSA transmittal requirements 41 CFR Part 101-47.202-2	Management of Federal Real Property	Land and Real Property Management	The General Services Administration (GSA) acts as a real estate agent for Federal agencies. This regulation requires Federal agencies to prepare annual reports of excess real property and related personal property on Standard GSA Forms. DOE is required to report to the GSA any information concerning hazardous substance activity on excess property being evaluated for transmittal and then disposal. Such information includes whether all remedial actions necessary to protect human health and environment have been taken prior to the property being reported excess.
<u>GSA Regulations</u> Utilization and Disposal of Real Property: Reports involving contaminated property 41 CFR Part 101-47.202-2 and 202-7	Management of Federal real property containing residual contamination	Land and Real Property Management	This regulation specifies the standard forms and requirements for reports to GSA of excess Federal real property being evaluated for disposal. Any report of excess real property which in its present condition is dangerous or hazardous to health and safety shall state the extent of such contamination, plans for decontamination, and the extent to which the property may be used without further decontamination.
<u>GSA Regulations</u> Utilization and Disposal of Real Property: Offers to purchase contaminated property 41 CFR Part 101-47.304.14	Federal real property transfers	Land and Real Property Management	GSA requires that the disposal agency for Federal real property include a CERCLA notification in any Invitation for Bid/Offer to Purchase property at which any hazardous substance was stored for one year or more, known to have been released, or disposed of.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<u>GSA Regulations</u> Utilization and Disposal of Real Property: Real property reported excess to GSA 41 CFR Part 101-47.905	Management of Federal real property	Land and Real Property Management	Each landholding agency must submit a report to GSA of properties it determines as excess. Once GSA receives this Report of Excess, GSA may screen the property for Federal use, and may also screen State and local governmental units and eligible nonprofit organizations to determine their interest in the property. The landholding agency will retain custody and accountability and will protect and maintain property that is reported as excess to GSA as provided in 41 CFR 101-47.402.
<b>Executive Order 12512</b> Federal Real Property Management 50 F.R. 18453 (April 29, 1985)	Federal real property management	Land and Real Property Management	Authorizes GSA to provide government-wide policy oversight and guidance for Federal real property management, and requires Agencies to establish internal policies and systems to ensure effective use of real property in support of mission-related activities consistent with Federal policies regarding acquisition, management, and disposal of assets. Also requires Agencies to develop annual real property management improvement plans that include goals and objectives related to all aspects of real property management.
<b>Regulations Relating to Public Lands</b> 43 CFR Part 2372	Management of Federal Lands by the DOI and general management of Federal lands.	Land and Real Property Management	Establishes general provisions for the management of Federal lands. Establishes regulations relating to public lands managed by DOI Bureau of Land Management (BLM) and Bureau of Reclamation (BoR), including land withdrawals and sales. Provisions of this Part apply to DOE lands that have been withdrawn from BLM or BoR. Regulations require that contaminated parcels of withdrawn land be identified when they are returned to the public.
<b>Migratory Bird Treaty Act of 1918</b> 16 U.S.C. 703 et seq.	Federal lands	Natural Resource Management	Protects migratory birds that have common migratory patterns within the U.S., Canada, Japan, Russia, and Mexico.
<b>Anadromous Fish Conservation Act of 1965</b> 16 U.S.C. 757 a-g	Federal agencies	Natural Resource Management	Requires certain steps to be taken to conserve anadromous fish (i.e. fish that breed in fresh water, such as salmon.)
<b>National Wildlife Refuge System Administration Act of 1966</b> , as amended by <b>National Wildlife Refuge System Improvement Act of 1997</b> 16 U.S.C. 668dd-668ee Pub. L. 89-669; Pub. L. 105-157	Federal agencies	Natural Resource Management	Provides guidelines and directives for administration and management of all areas in the refuge system. The Secretary of the Interior administers the Act through the U.S. Fish and Wildlife Service (FWS). This Act may affect DOE waste sites if portions of the sites are designated as wildlife refuges to be managed in accordance with the Act.
<b>Wild and Scenic Rivers Act of 1968</b> 16 U.S.C. 1271 et seq.	Federal lands	Natural Resource Management	Establishes provisions for the protection of listed Wild and Scenic rivers. Provides a process for new rivers to be added to the list of Wild and Scenic Rivers.
<b>Coastal Zone Management Act of 1972</b> 16 U.S.C. 1451 et seq.	Applies to Coastal Zones of the United States	Natural Resource Management	Establishes programs and procedures for the management of land and water resources of the coastal zone areas of the United States. States choose to voluntarily implement CZMA protections by using federal aid. The Office of Ocean and Coastal Resource Management (OCRM) approves programs. A state may then restrict or deny proposed harmful developments that are inconsistent with its CZMA program.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>Bald and Golden Eagle Protection Act of 1972</b> 16 U.S.C. 668-668d	Federal agencies	Natural Resource Management	Makes it unlawful to take, pursue, molest, or disturb Bald or Golden eagles. Requires a DOI permit for the relocation of an eagle's nest.
<b>Endangered Species Act of 1973 (ESA)</b> 16 U.S.C. 1531 et seq.	Federal agencies	Natural Resource Management	Requires Federal agencies to consult with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) to determine whether a proposed action or project would adversely affect an endangered or threatened species. Requires permits to kill, collect, remove, harass, import, or export a listed species. FWS focuses on terrestrial species and carries out administrative and regulatory ESA actions. NMFS addresses actions affecting marine species. Provides for civil and criminal penalties. Includes a citizen suit provision that allows any citizen to bring a civil suit against ESA violators.
<b>ESA Provisions</b> 16 U.S.C. 1536 [ESA Section 7]	Federal agencies	Natural Resource Management	Defines the process of approval, disapproval, and appeal for federal actions affecting listed species. Project plans must be reviewed and DOE must consult with FWS or NMFS before engaging in destructive or disruptive actions that may jeopardize the continued existence of a species or destroy its habitat. Biological assessments of future actions are often required.
<u>ESA Regulations- Endangered and Threatened Wildlife and Plants</u> , Subpart A—Introduction and General Provisions 50 CFR Part 17.1	Federal agencies	Natural Resource Management	Regulations identify those species that are determined to be endangered or threatened with extinction under section 4(a) of the ESA of 1973, as well as other “carry over” species and subspecies that were designated as endangered under the Endangered Species Conservation Act of 1969.
<u>ESA Regulations Endangered and Threatened Wildlife and Plants</u> – Subpart I Interagency Cooperation Critical habitats 50 CFR Part 17.94	Federal agencies	Natural Resource Management	All Federal agencies must ensure that any action authorized, funded, or carried out by them is not likely to result in the destruction or adverse modification of the constituent elements that are essential for the conservation of the listed species within defined Critical Habitats.
<u>ESA Regulations Implementation Interagency Cooperation</u> 50 CFR Part 402.01	Management of Federal lands and actions initiated by Federal agencies	Natural Resource Management	Grants authority to and imposes requirements upon Federal agencies with regards to endangered or threatened species and their critical habitat. Directs agencies to implement conservation programs for listed species. Each agency shall ensure that any action it authorizes, funds, or carries out is not likely to jeopardize continued existence of any listed species or result in the destruction or adverse modification of critical habitat.
<b>Executive Order 13112</b> Invasive Species 64 F.R. 6183 (February 8, 1999)	Federal agencies	Natural Resource Management	Establishes an Invasive Species Council that is to prepare an Invasive Species Management Plan detailing and recommending general and specific performance goals, objectives, and necessary measures to be taken by Federal agencies concerned about invasive species.
<b>Federal Land Policy and Management Act of 1976</b> 43 U.S.C. 1701 et seq.	Federal lands	Natural Resource Management	Requires development, maintenance and revision of land use plans for Federal lands. Establishes procedures for applying to the U.S. Bureau of Land Management (BLM) for land withdrawals and right of ways.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>Clean Water Act of 1977</b> (Amended the Federal Water Pollution Control Act of 1948) 33 U.S.C. 1251 et seq. DOE-applicable sections: 301, 302, 304(1), 306, 307, 313, 316, 402, 404	All persons who contaminate U.S. waters-DOE sites discharging into surface waters or POTWs	Natural Resource Management	EPA and States regulate releases of contaminants into navigable waters of the United States by requiring permits for releases. Main elements include: a system of minimum national effluent standards for each industry established by EPA, water quality standards provisions for addressing toxic chemicals and oil spills, and a revolving construction loan program for publicly-owned treatment works (POTWs). Requires permits for releases of contaminants through the National Pollution Discharge Elimination System (NPDES).
<b>Fish and Wildlife Coordination Act of 1934</b> 16 U.S.C. 661 et seq.	Federal lands	Natural Resource Management	Promotes more effectual planning and cooperation among public agencies and private entities for the conservation and rehabilitation of fish and wildlife affected by water development projects. Authorizes the DOI to provide protective assistance. Requires DOE to consult with FWS if a proposed activity will adversely affect a stream or water body.
<b>Fish and Wildlife Conservation Act of 1980</b> 16 U.S.C. 2901 et seq.	Federal agencies	Natural Resource Management	Encourages Federal Agencies, in consultation with the public, to protect and conserve fish and wildlife from Federal and Federally-permitted actions.
<b>Executive Order 12962</b> Recreational Fisheries 60 F.R. 30767 (June 9, 1995)	Federal agencies	Natural Resource Management	Directs Federal agencies to improve the quality of U.S. aquatic resources for recreational fishing opportunities and to identify and minimize conflicts between recreational fisheries and species protection under the Endangered Species Act of 1973.
<b>Marine Mammal Protection Act of 1972 (MMPA) as amended</b> 16 U.S.C. 1361 et seq. Marine Mammal Protection Amendments of 1994 Pub. L. 103-238	Federal agencies	Natural Resource Management	Protects and manages marine mammals and their products (e.g. hides and meat). The U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) are responsible for the implementation of the Act. The agencies may issue permits under Section 104 of the MMPA to persons, including agencies like DOE, that authorize the taking or importing of certain marine mammals. The Act establishes a Marine Mammal Commission (MMC) to review MMPA laws and conventions, along with the health of protected marine mammals. Federal agencies must cooperate with the MMC under Section 205 by providing facilities or services to FWS or NMFS. Requires permits for DOE sites or research activities that cause the removal, capture, hunting, or killing of marine mammals.
<b>Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA or Ocean Dumping Act) as amended by the Ocean Dumping Ban Act of 1988</b> Titles I and II: 33 U.S.C. 1401-1445; Title III: 16 U.S.C. 1431-1445 Pub. L. 92-532	All persons dumping wastes into oceans	Natural Resource Management	Regulates waste dumping in oceans for everything but dredged material. Provides for research on ocean dumping and the designation and regulation of marine sanctuaries. DOE may dump radioactive and some other hazardous wastes into the ocean under conditions stipulated by EPA and enforced by the Army Corps of Engineers (COE) if no other "reasonable alternatives" exist, such as landfilling. Ocean dumping permits are not available for high level radioactive waste. Low-level radioactive waste dumping is restricted and sometimes prohibited by regulations. Since Ocean Dumping Act became effective, EPA has denied 70 permit applications, primarily for chemical dumping.
<b>Materials Act of 1947</b> 30 U.S.C. 601-603	Federal lands	Natural Resource Management	Provides for the management of minerals, timber, and other construction resource material on public lands.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>Mining Law of 1872</b> 30 U.S.C. 22 et seq.	Federal lands	Natural Resource Management	Permits prospecting and mining of hard rock minerals in the non-appropriated public domain.
<b>National Wildlife Refuge System Administration Act 1966</b> 42 U.S.C. 668dd-ee	National Wildlife Refuges, including those on DOE sites	Natural Resource Management	Provide guidelines for the management and administration of all lands within the refuge system.
<b>Wilderness Act of 1964 (WA)</b> 16 U.S.C. 1131, et seq.	Federal lands	Natural Resource Management	Establishes the National Wilderness Preservation System for the preservation of Federally-owned wilderness areas.
<u>WA Regulations</u> Wilderness Preservation 43 CFR Part 19	Management of Federal Wilderness Areas	Natural Resource Management	Sets forth Department of the Interior (DOI) requirements regarding certain provisions of the Wilderness Act. Provisions of this Part would apply to any portions of DOE sites designated as wilderness areas.
<b>Pollution Prevention Act of 1990 (PPA)</b> 42 U.S.C. 13101-13109	Federal and commercial activities	Natural Resource Management	Focuses attention on reducing pollution from its source through changes in the production, operation, and use of raw materials. Increases efficiency for energy, water, and other resources through recycling. Owners or operators that are required by EPCRA to file a toxic chemical release report must include a source reduction and recycling report for the years that are unaccounted for. The report should identify the quantity of the chemical, the amount recycled, and the source reduction methods that were used or could be used.
<b>Toxic Substances Control Act of 1976 (TSCA)</b> 15 U.S.C. 2601 et seq. Regulations: 40 CFR 761	PCB waste facilities	Natural Resource Management	Regulates the management of polychlorinated biphenyls (PCBs) which are organic chemicals used widely in industrial applications because of their unique physical and chemical properties. PCB's cause adverse health effects and persist and accumulate in the environment. Bans the manufacture of PCBs after 1978. Waste composed of PCBs at amounts greater than or equal to 50 ppm must go within one year into a TSCA incinerator, chemical waste landfill, or other EPA-approved facility. EPA also addresses PCB spill cleanup. Liabilities for PCB storage problems are detailed under CERCLA and RCRA.
<u>TSCA Regulations</u> 40 CFR 761.180(a) & 40 CFR 761.180(b)	Facilities that use or store PCBs & Disposers and commercial storers of PCB waste	Natural Resource Management	Facilities that no longer store or use PCBs or related items must maintain their annual document log and records for three years after their PCB-related activity ends. Disposers and commercial storers of PCB waste must maintain the annuals records and log for incinerators, including high efficiency boiler operations, for three years after the facility ceases to participate in PCB-related activities.
<u>TSCA Regulations</u> 40 CFR 761.180(b)	Chemical waste landfills	Natural Resource Management	Annual records and logs shall be maintained for 20 years after the facility is no longer used for PCB disposal. Owners and operators must collect and maintain information regarding: burial coordinates of wastes (761.75(b)(8)(ii) and water analyses under 761.75(b)(6)(iii). No ground water monitoring frequency is outlined; specific permits should address this.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>Executive Order 12088, amended by Executive Order 12580</b> Federal Compliance with Pollution Control Standards 43 F.R. 47707 (October 13, 1978) 52 F.R. 2923 (January 23, 1987)	Federal agencies	Natural Resource Management	Directs agencies to comply with applicable pollution control standards, including but not limited to CWA, CAA, SDWA, TSCA, and RCRA. This order was amended by Executive Order 12580 which is detailed above under the CERCLA-Residual Site Hazards category.
<b>Safe Drinking Water Act of 1974 as amended (SDWA)</b> 42 U.S.C. 300f et seq.	Public drinking water supplier	Residual Site Hazards Management	The objective of the Act is to protect the quality of public drinking water supplies and sources of drinking water, including groundwater and surface water sources from underground injections of contaminated fluids. The Act also contains provisions for designation of aquifers as “sole source aquifers” to be protected from degradation due to their importance as a sole source of drinking water for a region.
<b>Safe Drinking Water Act Regulations</b> Generally: 40 CFR Part 100-149 Criteria and Standards Applicable to Class I Hazardous Waste Injection Wells- Post Closure Care: 40 CFR Part 146.72 Subpart G	Public drinking water suppliers- Underground injection wells	Residual Site Hazards Management	The SDWA regulations set maximum contaminant levels in drinking water, including those for radioactivity. Standards are set for the post closure care of closed injection wells. Post closure care includes maintenance of injection records, submission of a survey plat to the local zoning authority showing the location of the closed well, and notation on the facility property’s deed that indicates that the property was used for hazardous waste management. Standards apply to DOE public water supply systems, including the Oak Ridge Reservation as it provides water to the city of Oak Ridge. SDWA standards apply to groundwater requirements under other statutes like RCRA, thus the standards also address the cleanup, storage, and disposal of radionuclides, chemicals, and hazardous wastes.
<b>Clean Air Act of 1970 and Clean Air Act Amendments of 1990 (CAA)</b> 42 U.S.C. 7401 et seq., 42 U.S.C. 7512	Air polluters, including DOE facilities emitting radionuclides	Residual Site Hazards Management	The original CAA authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to limit air pollutants. The Act also requires National Emissions Standards for Hazardous Air Pollutants (NESHAPs) in order to control pollutants reasonably anticipated to cause increases in human mortality or serious human illnesses. The 1990 amendments expanded the regulation of hazardous air pollutants, directing EPA to establish standards for 189 hazardous substances by using “maximum achievable control technology” (MACT). Long term stewardship groundwater treatment projects are also subject to CAA air emission controls. In addition, CAA sets air emissions standards and monitoring, reporting, and record-keeping requirements for radon emissions under UMTRCA Title I and Title II.
<b>National Emission Standard for Asbestos</b> 40 CFR Part 61 Subpart M	Asbestos waste disposal units.	Residual Site Hazards	Regulates the management of active and closed asbestos waste disposal units. Institutional controls are required and maintained at closed asbestos disposal units.
<u>Maintenance Management Program Regulations</u> Maintenance Implementation Plan for Nuclear Safety 10 CFR 830.340	Lawrence Livermore National Laboratory Nonreactor Nuclear Facilities	Residual Site Hazards Management	Provides for a coordinated maintenance program to optimize critical systems and equipment performance for nuclear safety operations. Meant to establish clear and valid regulations in procedures and work instructions, as well as active management to better ensure the safety of human health and the environment.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<b>Waste Isolation Pilot Plant (WIPP) Land Withdrawal Act of 1992</b> Public Law 102-579	Waste Isolation Pilot Plant (WIPP)	Residual Site Hazards Management	Establishes that DOE will only place transuranic (TRU) waste from atomic energy defense activities into the Waste Isolation Pilot Plant (WIPP). EPA certifies DOE compliance with 40 CFR Part 191, Subparts B and C. Compliance with WIPP requirements can be certified through the submittal of a Compliance Certification Application under 40 CFR 194.
<u>LWA/WIPP Regulations</u> Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level, and Transuranic Radioactive Wastes 40 CFR Part 191 Subpart B	Management of spent nuclear fuel and high-level radioactive waste at DOE facilities	Residual Site Hazards Management	Establishes monitoring, reporting, record-keeping, and institutional control requirements for the operation, closure, and post closure of disposal facilities. Post closure monitoring under this Subpart complements monitoring that is required by RCRA regulations. Active institutional controls over disposal sites should be maintained for as long a period of time as is practicable after disposal, however facility performance assessments shall not consider any contributions from active institutional controls for more than 100 years after disposal. Disposal systems shall be monitored to detect deviations from expected performances using techniques that do not jeopardize the isolation of the wastes. Monitoring shall be conducted until there are no further significant concerns. Disposal sites shall be designated by the most permanent markers, records, and other passive institutional controls practicable to indicate the dangers and locations of the wastes. Disposal systems shall use different types of barriers to isolate the wastes from the accessible environment. Both engineered and natural barriers shall be included in the facility design.
<u>LWA/WIPP Regulations</u> Criteria for the Certification and Re-Certification of the Waste Isolation Pilot Plant's Compliance with 40 CFR Part 191 Disposal Regulations 40 CFR Part 194	Waste Isolation Pilot Plant	Residual Site Hazards Management	Establishes monitoring, reporting, record keeping, and institutional control requirements for the operation, closure, and post-closure of the WIPP facility. Active controls for the facility include access control signs and fences, periodic inspection and maintenance, and monitoring of the permanent marker (passive control) system. The marker system includes buried inscription and magnetic markers, and sets of records are distributed to local, national and international archives. Post-closure monitoring includes groundwater inspections, subsidence and drilling surveys, and radiological environmental monitoring.
<u>LWA/WIPP Regulations</u> Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level, and Transuranic Radioactive Wastes 40 CFR Part 191.12	Definitions applicable to Subpart B above	Residual Site Hazards Management	For the purposes of 40 CFR 191, "active institutional control" means: (1) controlling access to a disposal site by any means other than passive institutional controls; (2) performing maintenance operations or remedial actions at a site, (3) controlling or cleaning up releases from a site, or (4) monitoring parameters related to disposal system performance.
<u>LWA/WIPP Regulations</u> Institutional Control and Monitoring Requirements for Waste Isolation Pilot Plant 40 CFR Part 191.14	Management of spent nuclear fuel and high-level radioactive waste at DOE facilities	Residual Site Hazards Management	Active institutional controls must be maintained for disposal sites for as long as is practicable. Post-closure monitoring must continue using techniques that do not jeopardize waste isolation until there are no further concerns requiring monitoring. Disposal sites must be designated in order to indicate the dangers of the wastes and their location. The site-specific active and passive institutional controls and the monitoring program for WIPP are described in the Compliance Certification Application. Passive institutional controls and the permanent marker system for WIPP do not depend upon active human management.

STATUTES, REGS, & ORDERS, as amended	APPLICABILITY	CATEGORY	SPECIFIC REQUIREMENTS/IMPACTS
<u>LWA/WIPP Regulations</u> Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings 40 CFR Part 192	Uranium and thorium mill tailings sites	Residual Site Hazards Management	Establishes monitoring, reporting, and record-keeping requirements for remediated mill tailings sites for the purposes of determining compliance with dose-based standards.