

**Table 1-1
Location-Specific ARARS**

Regulatory Authority	Location Characteristic	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR
Federal	Floodplains	Floodplain Management Executive Order No. 11988 [40 Code of Federal Regulations (CFR) Part 6, App. A]	Relevant and Appropriate	Requires federal agencies to evaluate potential adverse effects associated with direct and indirect development of a floodplain. Alternatives that involve modification/construction within a floodplain may not be selected unless a determination is made that no practicable alternative exists. If no practicable alternative exists, potential harm must be minimized and action taken to restore and preserve the natural and beneficial values of the floodplain.	There is no practicable alternative that would have a less adverse impact on floodplains. Appropriate federal and state agencies would be contacted and allowed to review the proposed work plan for the response action within Site Brook prior to implementation of the action. Response actions would be scheduled and designed to minimize harm to floodplains to the extent practicable, and any adverse impacts would be mitigated through floodplain restoration.
Federal	Wetlands	Protection of Wetlands Executive Order No. 11990 [40 CFR Part 6, App. A]	Relevant and Appropriate	Under this Order, federal agencies are required to minimize the destruction, loss, or degradation of wetlands, and preserve and enhance natural and beneficial values of wetlands. If remediation is required within wetlands areas, and no practical alternative exists, potential harm must be minimized and action taken to restore natural and beneficial values.	There is no practicable alternative that would have a less adverse impact on wetlands. Appropriate federal and state agencies would be contacted and allowed to review the proposed work plan for the response action within Site Brook prior to implementation of the action. Response actions would be scheduled and designed to minimize harm to wetlands to the extent practicable, and any adverse impacts would be mitigated through wetland restoration.
Federal	Navigable Waters	Rivers and Harbors Act of 1899 [33 United States Code (USC) 403 et seq.; 33 CFR Parts 320-323]	Relevant and Appropriate	Section 10 of the Rivers and Harbors Act of 1899 requires that the construction of any structure in or over any "navigable water of the U.S." including the excavation from or deposition of material in such waters, or any obstruction of alteration in such waters, obtain authorization from the Secretary of the Army acting through the U.S. Army Corps of Engineers.	Site activities will be designed and implemented to avoid obstruction and minimize alteration of navigable waters. Disturbed areas will be restored.

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Regulatory Authority	Location Characteristic	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR
Federal	Endangered Species	Endangered Species Act [16 (USC) 1531 et seq.; 40 CFR 6.302(h); 50 CFR Part 200, 50 CFR Part 402]	Applicable, if such species are encountered	This statute requires that activities be avoided that jeopardize threatened or endangered species or adversely modify habitats essential to their survival. Mitigation measures should be considered if a listed species or habitat may be jeopardized.	Although no currently listed endangered or threatened species or their nests have been identified at the site, their presence has been noted in the area. As part of the remedial action, pertinent lists will be reviewed to assess whether federally listed species may be present. During the remedial action, measures such as relocation or seasonal work limits for specific actions would be implemented to protect listed species, if any are identified.
Federal	Surface Waters	Fish and Wildlife Coordination Act [16 USC 661 et seq.; 40 CFR Section 6.302(g); 33 CFR Part 320]	Applicable	Requires that the U.S. Fish and Wildlife Service and National Marine Fisheries Service be consulted prior to structural modification of any stream or other water body (i.e., wetland). It also requires adequate protection of fish and wildlife resources. Requires consultation with state agencies to develop measures to prevent, mitigate, or compensate for project-related losses to fish and wildlife.	This alternative would include excavation within Site Brook. No practicable alternative to this action exists. Actions taken would minimize adverse impacts to fish and wildlife. Relevant federal and state agencies would be contacted and allowed to review the proposed work plan for the response action prior to implementation of the action.
State	Floodplains	Regulations of Connecticut State Agencies (RCSA) Floodplain Management Standards [RCSA 25-68h-2]	Applicable to Site Brook excavation	These rules address restrictions for structures within floodplains, restrictions for filling or excavating within floodplains, and storage of materials and equipment within floodplains.	This alternative would include excavation within Site Brook. No practicable alternative to this action exists. Actions taken would minimize adverse impacts to floodplains of the brook. Relevant state agencies would be contacted and allowed to review the proposed work plan for the response action prior to implementation of the action.

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State	Wetlands	Wetland Requirements [RCSA 22a-39]	Applicable to Site Brook excavation	These rules regulate the following activities within a wetland: removal of materials, deposition of materials, and construction or alteration within such areas. Under these rules, wetlands are defined to include soil types designated as floodplains.	This alternative would include excavation within Site Brook. No practicable alternative to this action exists. Actions taken would minimize adverse impacts to wetlands and floodplains of the brook. Relevant state agencies would be contacted and allowed to review the proposed work plan for the response action prior to implementation of the action.

Notes:

CFR = Code of Federal Regulations

USC = United States Code

RCSA = Regulations of Connecticut State Agencies

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**Table 1-2
Chemical-Specific ARARS**

Regulatory Authority	Chemical Medium	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR
Federal	Various	Nuclear Regulatory Commission (NRC) Radiological Criteria for License Termination [10 Code of Federal regulations (CFR) Part 20, Subpart E]	Applicable	Under this rule, a site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a total effective dose equivalent (TEDE) to an average member of the critical group that does not exceed 25 mRem per year and the residual radioactivity has been reduced to levels that are as low as reasonably achievable (ALARA).	This alternative includes excavation of soil and sediment at FUSRAP areas that exceed Preliminary Remediation Goals based on a 19 mRem per year dosage, a level considered ALARA. Excavated material will be consolidated in an on-site containment cell designed and constructed to prevent dosages exceeding 25 mRem per year.
Federal	Soils, Sediments and Building Materials	Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) [NUREG 1575]	To be considered	Provides guidance on the performance of Final Status Surveys.	Final Status Surveys will be conducted at the Site in accordance with MARSSIM.
State	Soil, Groundwater, Surface water, and Soil vapor.	Regulations of Connecticut State Agencies (RCSA) Remediation Standard Regulations (RSRs) [RCSA §§ 22a-133k-1 et seq.]	Applicable	These regulations provide numeric standards for remediation of a wide variety of contaminants in soil, groundwater, surface water, and soil vapor. The State of Connecticut has established a 19 mRem per year dose standard as a cleanup target for radiologically contaminated sites.	This alternative will be designed and implemented to provide a reduction in soil contaminant concentrations to achieve the RSRs criteria. This alternative will be designed and implemented to attain the 19 mRem per year dose standard.

Notes:

ALARA = as low as reasonably achievable

CFR = Code of Federal Regulations

FR = Federal Register

NRC = Nuclear Regulatory Commission

RCSA = Regulations of Connecticut State Agencies

RSR = Remediation Standard Regulations

TEDE = total effective dose equivalent

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**Table 1-3
Action-Specific ARARS**

Regulatory Authority	Action	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR
Federal	Identification of hazardous waste	Resource Conservation and Recovery Act (RCRA) Identification and Listing of Hazardous Waste [40 Code of Federal Regulations (CFR) Part 260/261; incorporated by reference at RCRA 22a-449c-101]	Applicable	These requirements identify the conditions under which a waste would be considered hazardous (i.e., an F-, P-, K-, U-, or D- listed waste). These requirements also provide the maximum concentrations of contaminants for which the waste would be a RCRA characteristic waste because of its toxicity. The analytical test set out in Appendix II of 40 CFR Part 261 is referred to as the Toxicity Characteristic Leaching Procedure.	Removed material will be assessed to determine whether it should be handled as hazardous waste
Federal	Generation of hazardous waste	RCRA Standards Applicable to Generators of Hazardous Waste [40 CFR Part 262]	Applicable	Connecticut has been delegated the authority to administer these RCRA standards through its state hazardous waste management regulations. The relevant and appropriate provisions of 40 CFR Part 262 are incorporated by reference.	Because this alternative involves the excavation of material potentially classified as RCRA-listed or RCRA-characteristic wastes, such materials would need to be handled in compliance with the substantive requirements of these standards.
Federal	Storage of hazardous waste in containers.	RCRA Container Storage Requirements [40 CFR Part 264, Subpart I]	Applicable	These regulations apply to owners and operators who store hazardous wastes in containers.	If containers are used to store materials that are hazardous wastes, the containers will be managed according to these rules.
Federal	Transport and disposal of hazardous waste	RCRA Manifest System, Record keeping, and Reporting [40 CFR Part 264, Subpart E]	Applicable	This regulation outlines the requirements to track hazardous waste activities, including the manifest system, operating records, and reporting.	Remedial action activities will be conducted to comply with the facility's requirements in accordance with this regulation.
Federal	Transportation of hazardous waste	RCRA Standards Applicable to Transporters Of Hazardous Waste [40 CFR Part 263]	Applicable	These regulations establish procedures to be followed when transporting manifested hazardous waste within the United States.	Transporters of hazardous waste for off-Site treatment and/or disposal will comply with these requirements.

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Regulatory Authority	Action	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR
Federal	Generation of air emissions at NRC licensed facilities	Clean Air Act (CAA) National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR Part 61, Subpart I]	Applicable	Subpart I provides emission standards for NRC-licensed facilities. 40 CFR § 61.102 specifies that a member of the general public shall not be exposed to emissions of radionuclides to ambient air in excess of an effective dose equivalent of 10 mRem per year.	Remedial actions will be conducted in accordance with these requirements.
Federal	Demolition of structures with asbestos containing material	CAA National Emission Standards for Hazardous Air Pollutants [40 CFR Part 61, Subpart M]	Applicable	This requirement provides emission standards for specific pollutants for which no ambient air quality standard exists. NESHAPs have been promulgated for specific source types emitting certain pollutants, including asbestos. Subpart M establishes standards for inactive waste disposal sites and disposal of asbestos-containing material from demolition and renovation operations (40 CFR § 61.145).	Demolition activities involving asbestos-containing material will be conducted in accordance with these requirements.
Federal	Cleanup and disposal of PCB remediation waste	Toxic Substances Control Act (TSCA) Polychlorinated Biphenyl (PCB) Remediation Waste [40 CFR Part 761.61]	Applicable	Provides cleanup and disposal options for PCB remediation waste.	Cleanup and disposal of PCB remediation waste resulting from the remedial action will be conducted in accordance with these requirements.
Federal	Decontamination and Decommissioning	NMSS Consolidated Decommissioning Guidance [NUREG 1757]	To Be Considered	Provides guidance to licensees, identifies techniques and criteria to be used in decommissioning, and provides acceptable methods for implementing specific parts of the NRC's regulations.	NUREG 1757 is not a regulation and therefore compliance with the NuReg is not required. However, this guidance will be considered in design and implementation of the remedial action.

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Regulatory Authority	Action	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR
Federal	Radiological remediation	U.S. Nuclear Regulatory Commission (NRC)/U.S. Army Corps of Engineers (USACE) Memorandum of Understanding (MOU)	To Be Considered	The MOU addresses unrestricted releases under 10 CFR 20.1402 to ensure that the criteria of the License Termination Rule or a more stringent requirement will be met. The MOU assists to reduce unnecessary burden on stakeholders and avoid duplication of regulatory requirements and effort by setting cooperative conditions, consistent with the protection of public health and safety.	The agencies cooperate and share data and reports in order to meet statutory requirements. Site remediation must be conducted to achieve radiological criteria for unrestricted use of the NRC's License termination Rule.
Federal	Discharge to surface water	Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) (40 CFR Parts 122, 125, 131, and 136)	Applicable	This rule requires permits for the discharge of pollutants from any point source into U.S. waters.	Contaminated surface water, groundwater, or dewatering fluids encountered during corrective action activities will be containerized and either treated on-Site prior to discharge to surface water, or routed through an off-Site POTW. Effluent will meet the POTW discharge limitations, monitoring requirements, and best management practices.
Federal	Discharge to Publicly Owned Treatment Works	CWA National Pretreatment Standards (40 CFR Part 403)	Applicable	This regulation sets pretreatment standards for the introduction of pollutants from non-domestic sources into POTWs. These regulations are designed to control pollutants that pass through, cause interference, or are otherwise incompatible with treatment processes at a POTW.	Any discharge of treated surface water, groundwater, or dewatering fluids that goes to an off-Site POTW will meet discharge limitations and pretreatment requirements imposed on POTWs.
State	Disposal of demolition waste	CTDEP Solid Waste Management [CGS Title 22a Chapter 446d § 208x; RCSA § 22a-209]	Relevant and Appropriate	This regulation specifies that demolition waste may be disposed of at any solid waste disposal facility that has a permit for bulky waste, or at a municipal solid waste facility.	Demolition waste not contaminated with hazardous substances will be disposed in accordance with these requirements.

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State	Management of hazardous waste	CTDEP Hazardous Waste Management [CGS §§ 22a-454 and 22a-449(c); RCSA §§ 22a-449(c)-100 through 110 and 22a-449(c)-11]	Relevant and Appropriate	This regulation specifies requirements for the design, operation, and closure of hazardous waste disposal facilities. This regulation incorporates by reference the RCRA requirements for hazardous waste facilities.	Remedial action activities will meet the minimum standards of this regulation.
State	Land-disposal of hazardous wastes	RCRA Land Disposal Restrictions [40 CFR Part 268.7 incorporated by reference at RCSA 22a-449c-108]	Applicable	Certain restricted wastes are prohibited from land disposal unless treated to specified standards. These regulations state that a generator must determine whether or not a waste is one that is restricted from land disposal, and whether or not the waste meet the treatment standard. The generator must notify the disposal facility of these findings.	The potential exists for wastes removed from Drum Burial Pit, Clamshell Area, and Site Brook study areas to be RCRA-characteristic wastes. Some wastes, if classified, may be prohibited from land disposal without prior treatment. If so, appropriate treatment would need to be applied in accordance with these regulations prior to ultimate disposal of these materials.
State	Soil remediation	RCSA Remediation Standard Regulations [RCSA 22a-1 33k-2]	Applicable	The state standards for soil remediation regulate the remediation of polluted soil at release area. The standards specify the criteria that must be met in terms of direct exposure and pollutant mobility, including engineered controls.	Soils and sediments exceeding these criteria will be excavated and disposed off-site.
State	Excavation within Site Brook	RCSA Water Quality Standards [CGS 22a-426, et seq.]	Applicable	These state water quality standards prohibit discharge of radioactive materials in concentrations that would be harmful to human health or the environment. These standards also specify that sediments are to be free of pollutants that unduly affect the bottom of a stream or that interfere with propagation and habitats of fish and wildlife.	Components of this alternative relating to excavation of sediment within Site Brook will be carried out in compliance with these regulations, such that surface water and sediments remain in compliance with water quality standards.

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Regulatory Authority	Action	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR
State	Discharge to surface water	Water Pollution Control Act (CGS §§ 22a-416 through 22a-438; RCSA §§ 22a-430-1 through 22a-430-7)	Applicable	This act requires permits for any discharge of water, substance, or material into the waters of the state.	Contaminated surface water, groundwater, or dewatering fluids encountered during corrective action activities will be containerized and either treated on-Site prior to discharge to surface water, or routed through an off-Site POTW. These activities will be conducted in accordance with the requirements of this act (e.g., monitoring requirements and discharge limitations).
State	Generation of fugitive dust air emissions	Abatement of Air Pollution [CGS Title 22a, Chapter 446c; RCSA §§ 22a-174-1, et seq.]	Applicable	These regulations require permits to construct and to operate specified types of emission sources and contain emission standards that must be met prior to issuance of a permit. Pollutant abatement controls may be required. Specific standards pertain to fugitive dust (RCSA § 22a-174-18(b)) and control of odors (RCSA § 22a-174-23)	Emission standards for fugitive dust will be met with dust control measures during the remedial actions to comply with substantive requirements.
State	Asbestos removal	CT Standards for Asbestos Abatement [CGS Title 19a Chapter 368L; RCSA §§ 19a-332a-5 and 19a-332a-7]	Applicable	RCSA § 19a-332a-5 establishes general requirements for asbestos abatement projects, such as posted signs, shutdown of HVAC systems, isolation from non-work areas, and other measures. RCSA § 19a-332a-7 establishes specific requirements for asbestos removal, such as wetting, removing components intact where possible, decontaminating equipment, and other measures.	Asbestos abatement will be conducted in accordance with the requirements of these regulations.
State	Generation of noise	Noise Pollution Control Act [CGS § 22a-69; RCSA §§ 22a-69-1 through 69-7.4]	Applicable	These regulations establish allowable noise levels.	Remedial actions will be conducted to comply with these regulations.

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Regulatory Authority	Action	Requirement	Status	Requirement Synopsis	Action to be Taken to Attain ARAR
State	Encountering significant environmental hazards while sampling	Reporting of Certain Significant Environmental Hazards by Owners of Contaminated Real Property [CGS 22a-6u]	Applicable	Requires reporting to the property owner, the client, the Commissioner, and, in some case, the local fire department when certain conditions are encountered by a technician collecting soil, water, vapor, or air samples for the purpose of remediating sources of pollution to waters of the state.	If significant environmental hazards are encountered during collection of samples, the will be reported to the Connecticut department of Environmental protection s required by this regulation.
State	Spill incident	Report of Discharge, Spill, Loss, Seepage, or Filtration [CGS 22a-450]	Applicable	This statute requires that discharge, spillage, uncontrolled loss, seepage or filtration of oil or petroleum or chemical liquids or solid, liquid or gaseous products or hazardous wastes be immediately reported to the CTDEP	The discharge, spill, loss, seepage, or filtration of material will be reported as required by this statute.
State	Performing activities with potential to cause erosion and sedimentation	Guidelines for Soil Erosion and Sediment Control; The Connecticut Council on Soil and Water Conservation	To be Considered	These guidelines provide technical and administrative guidance for the development, adoption, and implementation of erosion and sediment control program.	These guidelines will be incorporated into any remedial action activities. Erosion and sediment control measures will be implemented during remedial action activities.

Notes:

CAA = Clean Air Act

CFR = Code of Federal Regulations

CGS = Connecticut General Statute

CTDEP = Connecticut Department of Environmental Protection

CWA = Clean Water Act

DCGL = Derived Concentration Guidance Levels

NESHAP = National Emission Standards for Hazardous Air Pollutants

NPDES = National Pollutant Discharge Elimination System

POTW = Publicly Owned Treatment Works

RCRA = Resource Conservation and Recovery Act

RCSA = Regulations of Connecticut State Agencies

TSCA = Toxic Substances Control Act

USC = United States Code

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