

**Final Regulatory Compliance Plan
Former Harshaw Chemical Company Site
Remediation of Operable Units 1 and 2
Cleveland, Ohio**

Contract No: W912P424C0002

Delivery Order No: W912P423R0019

May 2024

Prepared for:



USACE Buffalo District
478 Main Street
Buffalo, New York 14202

Prepared by:



Enviro-Fix Solutions LLC
1240 Bayshore Highway, Suite 311
Burlingame, California 94010
Phone: 650-347-1555 / Fax: 650-347-8789
Email: corporate@ecc.net



TABLE OF CONTENTS

Table of Contents.....	ii
List of Tables	ii
Acronyms and Abbreviations	iii
Signatures.....	v
1.0 Introduction.....	1
1.1 Background and Purpose.....	1
1.2 Summary of Site History.....	1
2.0 Approach.....	2
3.0 Regulatory Requirements.....	3
3.1 ARARS for the Excavation Remedial Activities	4
3.2 Requirements for the Execution of Removal Action	4
3.2.1 Permitting.....	4
3.2.2 Statutory Authority	5
3.2.3 Federal Regulatory Agencies.....	8
3.2.4 State Regulatory Agencies.....	9
3.3 Summary of Applicable Requirements and Standards.....	9
4.0 References.....	9

LIST OF TABLES

Table 3-1: Potential Regulatory Requirements for the Former Harshaw Chemical Company Site Remediation	14
Table 3-2: USACE Guidance Documents for Hazardous, Toxic, and Radioactive Waste (HTRW) Sites.....	33



ACRONYMS AND ABBREVIATIONS

AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
ALARA	As Low as Reasonably Achievable
ARAR	Applicable or Relevant and Appropriate Requirements
ARPA	Archeological Resource Protection Act
BRP	Backfill & Restoration Plan
CAA	Clean Air Act
CCP	Contamination Control Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Constituents of Concern
CQCP	Contractor Quality Control Plan
CWA	Clean Water Act
CX	Categorical Exclusion
DoD	Department of Defense
DOE	Department of Energy
DOT	Department of Transportation
EA	Environmental Assessment
EE/CA	Engineering Evaluation/Cost Assessment
EFS	Enviro-Fix Solutions LLC
EIS	Environmental Impact Statement
EP	Engineer Pamphlet
EPCRA	Emergency Planning and Community Right-to-know Act
ER	Engineer Regulation
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FS	Feasibility Study
FSA	Feasibility Study Addendum
FSSP	Final Status Survey Plan
FUSRAP	Formerly Utilized Sites Remedial Action Program
FWPCA	Federal Water Pollution Control Act
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCCS	Former Harshaw Chemical Company Site
HMTA	Hazardous Materials Transportation Act
HTRW	Hazardous, Toxic and Radioactive Waste
LLC	Limited Liability Corporation
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MED	Manhattan Engineer District
NAGPRA	Native American Graves Protection and Repatriation Act
NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NOI	Notice of Intent
NORM	Naturally Occurring Radioactive Material
NPDES	National Pollutant Discharge Elimination System
No.	Number
NRC	US Nuclear Regulatory Commission



OAC	Ohio Administrative Code
ODH	Ohio Department of Health
ODNR	Ohio Department of Natural Resources
Ohio EPA	Ohio Environmental Protection Agency
OSHA	Occupational Safety and Health Administration (or Act)
OU	Operable Unit
PCBs	Polychlorinated biphenyls
PM	Particulate Matter
POTW	Publicly Owned Treatment Works
PPE	Personal Protective Equipment
QAPP	Quality Assurance Project Plan
QC	Quality Control
RCP	Regulatory Compliance Plan
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
RMS CM	Resident Management System Contractor Mode
ROD	Record of Decision
RQ	Reportable Quantity
RPP	Radiation Protection Plan
SARA	Superfund Amendments and Reauthorization Act
SAP	Sampling and Analysis Plan
SERC	State Emergency Response Commission – (State of Ohio)
SOP	Site Operations Plan
SSHP	Site Safety and Health Plan
SWPPP	Storm Water Pollution Prevention Plan
§	Section
TEDE	Total Effective Dose Equivalent
TSCA	Toxic Substances Control Act
TSD	Transportation, Storage, Disposal and Disposal
UFGS	Unified Facilities Guide Specifications
UFP	Uniform Federal Policy
US	United States
USACE	US Army Corps of Engineers
USC	US Code
USEPA	US Environmental Protection Agency
WMP	Water Management Plan
WMTDP	Waste Management Transportation and Disposal Plan

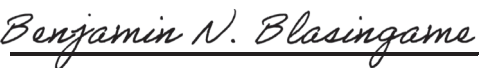


SIGNATURES


This Revised Draft Regulatory Compliance Plan (RCP) has been prepared by Enviro-Fix Solutions LLC (EFS) to describe the federal and state regulatory requirements and US Army Corps of Engineers (USACE) guidance governing the remedial activities and management of site operations for the Former Harshaw Chemical Company Site (HCCS) Remediation of Operable Units 1 and 2, Cleveland, Ohio, in accordance with United Facilities Guide Specifications (UFGS) 01 45 00.00 10 QUALITY CONTROL.

EFS is committed to providing products and services to its clients that consistently meet or exceed their requirements. This is accomplished through a clearly communicated quality objective that establishes a plan and expectations for effective management of daily site operations. All staff and subcontractors are responsible for ensuring the quality of their work meets our established quality control (QC) criteria. All managers and employees are responsible for continual improvement in the products and services provided, for identifying and eliminating poor work products and deliverables, and for applying appropriate QC and processes to achieve these requirements.

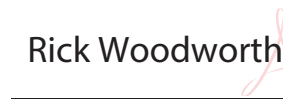
Plan Preparer:

	5/16/2024	412-429-2324
Benjamin N. Blasingame Project Manager	Date	Phone

Plan Concurrence:

	5/17/2024	716-465-7811
Jason Hubler Sr. Radiological Engineer	Date	Phone

Plan Approval:

 Digitally signed by Rick Woodworth Date: 2024.05.17 09:32:05 -04'00'	5/17/2024	215-776-0629
Rick Woodworth Sr. Project Manager	Date	Phone



1.0 INTRODUCTION

1.1 Background and Purpose

Enviro-Fix Solutions LLC (EFS) has been selected by the United States Army Corps of Engineers (USACE) - Buffalo District under Contract No. W912P424C0002 and Delivery Order No. W912P423R0019, to perform the project entitled: Former Harshaw Chemical Company Site (HCCS) Remediation of Operable Units 1 and 2, located in Cleveland, Ohio. The remediation is being completed under USACE's Formerly Utilized Sites Remedial Action Program (FUSRAP), which was established to identify, investigate, and clean up or control sites previously used by the Atomic Energy Commission (AEC), and its predecessor, the Manhattan Engineer District (MED).

The HCCS is a 55-acre property that includes several developed and undeveloped land parcels near the intersection of Harvard Avenue and Jennings Road. Developed parcels include former production areas with foundations, parking areas associated with demolished buildings, and redeveloped, privately-owned commercial properties. Industry and commercial business surround the site. Neighboring industries include Cleveland-Cliffs Cleveland Works LLC., Howmet Aerospace, Chemical Solvents, Inc., and CSP Fabricating. The site is separated into two operable units (OU) and an investigative area (IA) for environmental remediation associated with FUSRAP. OU-1 is located north of Big Creek and west of the Cuyahoga River. Buildings in this area have been removed. The southern section contains a property developed for truck and equipment servicing. The remainder is undeveloped industrial properties, open fields, and wooded areas. OU-2 is south of Big Creek and west of the Cuyahoga River. It mainly consists of undeveloped properties and open fields. A municipality-owned property and a trucking company are in the northwest section. The southern section contains a closed solid waste landfill.

Remediation of the Site under the FUSRAP will be completed to provide for the maximum achievable level of protection for human health and the environment. The remedial alternative selected by the USACE consists of excavation and off-site disposal of radioactive soil and debris Record of Decision (ROD) for Operable Unit (OU)-1 and OU-2 (USACE, 2021). The selected remedy is considered to be the most protective and permanent, because it provides for the removal of all soil exceeding established cleanup goals (USACE, 2021). Operations will be completed to minimize exposure to remediation workers and the public by ensuring that the objective of maintaining as low as reasonably achievable (ALARA) exposure levels is met throughout the course of the project.

This Regulatory Compliance Plan (RCP) addresses the Federal, State, and local regulations and guidance that will govern the Site activities, providing an outline of the laws, rules, regulations, and standards. These statutory and regulatory requirements will be followed to ensure that the objectives of protecting human health and the environment and maintaining the philosophy of ALARA are met. EFS's project organization, key personnel, and overall strategy for site remediation are described in the project Site Operations Plan (USACE, 2024a).

1.2 Summary of Site History

The HCCS was used for various manufacturing operations from 1918 through the 1990s. Between 1944 and 1953, the Manhattan Engineer District (MED) and Atomic Energy Commission (AEC) used the site to process uranium. The primary production process involved refining of uranium oxide feed material to produce uranium tetrafluoride, uranium hexafluoride, and uranium trioxide. The uranium processing operations were conducted in Building G-1.



The site was designated for inclusion under FUSRAP June 1999 by USACE, followed by RCRA corrective action by US Environmental Protection Agency (USEPA) in March 2010. As a result of historical industrial use, site soil and groundwater contain varying concentrations of residual radioactive materials from previous operations. FUSRAP constituents of concern (COCs) for OU-1 and OU-2 soils include radium (Ra)-226, thorium (Th)-230, Th-232, and total uranium (U).

2.0 APPROACH

The FUSRAP was initiated in 1974 by the AEC to identify, assess, and clean-up sites with residual radioactive contamination resulting from the research and development activities associated with the early atomic weapons program. In 1997, management of the FUSRAP was transferred to the USACE from the Department of Energy (DOE), and a Memorandum of Understanding between the two agencies was formalized in March 1999. As part of the management of the FUSRAP, USACE is overseeing investigation and remediation of radiological contamination at the HCCS in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 US Code (USC), Section (§) 9601 et. seq., as amended, and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP), Title 40 of the Code of Federal Regulations (CFR) § 300.430(f) (2).

The USACE completed a Remedial Investigation for the HCCS in 2009 in accordance with CERCLA methodologies (USACE, 2009). Following the Engineering Evaluation/Cost Assessment (EE/CA), the Feasibility Study (FS) (USACE, 2012) was completed, and a Feasibility Study Addendum (FSA) (USACE, 2018) was subsequently prepared (USACE, 2021). These documents, in addition to the Final Record of Decision (USACE, 2021), support the excavation and off-site removal of contaminated soil as the preferred alternative remedial action. The purpose of the remedial action is to reduce the potential for future exposure to the contaminated soil and to accomplish the action in a way that minimizes risks to personnel performing the removal action, to the public, and to the environment, by implementing procedures that conform to the philosophy of ALARA.

Applicable or Relevant and Appropriate Requirements (ARARs) are legal standards outside of CERCLA that must be met (applicable) or should be met (relevant and appropriate) when conducting site clean-up actions. Examples include complying with stormwater discharge requirements (as promulgated under the Clean Water Act), or meeting State or local clean-up standards in addition to those under a Federal program. Requirements are determined to be applicable if such Federal or State standards or requirements are legally applicable to the hazardous substance or pollutants at a site. The requirements are determined to be relevant and appropriate if they are those that, while not applicable to a hazardous substance or pollutant, are found to be relevant and appropriate under the circumstances of the release or threatened release of the hazardous substance or pollutant at a site. Section 121(d) of CERCLA requires that onsite remedial actions attain or waive Federal environmental ARARs, or more stringent State environmental ARARs, upon completion of the remedial action. The NCP also requires compliance with ARARs during implementation of remedial actions and during removal actions to the extent practicable. An analysis to determine ARARs for the Site was completed by the USACE in the ROD, (USACE, 2021). Results of that analysis are summarized in Section 3.1 of this Plan.



The means, methods, and procedures involved with completing the remedial action at this Site are presented in project work plans. These plans are referenced throughout this RCP and include the following:

Site Operations Plan [SOP, (USACE, 2024a)] – The SOP describes the methods, procedures and facilities that will be implemented to complete remediation in accordance with USACE guidelines and maintaining a safe and productive work environment. The SOP describes EFS’s overall plan for completing the remediation of the HCCS, and references the supporting work plans, listed below, for further details.

Water Management Plan [WMP, (USACE, 2024j)] – The WMP describes methods for preventing surface water run-on and controlling surface runoff water, including methods for collecting, storing and managing water from active excavations and waste handling areas. The WMP also includes information relative to anticipated discharge permit conditions and requirements, and related sampling and laboratory analysis of collected wastewater prior to transport and off-site treatment.

Waste Management, Transportation, and Disposal Plan [WMTDP, (USACE, 2024k)] – The WMTDP describes methods for managing waste including characterization, packaging, labeling, and disposition. The WMTDP also includes information relative to transportation of waste such as compliance with Department of Transportation (DOT) requirements and manifest management.

Accident Prevention Plan/Site Safety & Health Plan [APP/SSHP, (USACE, 2024c)] – The APP/SSHP specifies policies and practices designed to control exposure to physical, chemical, biological, and radiological health hazards, and to protect personnel and property from loss due to accidents.

Radiation Protection Plan [RPP, (USACE, 2024c)] – The RPP addresses the radionuclides that will be encountered at the Site, and provides details of the methods, materials, and equipment that will be used to prevent and minimize remediation worker and public exposure to radiation.

Uniform Federal Policy Quality Assurance Project Plan/Sampling and Analysis Plan [UFP-QAPP/SAP, (USACE, 2024h)] – The SAP describes specific testing and QC protocols and procedures for air, soil, water, and waste sampling at the Site for both personnel safety and field remediation/waste characterization purposes.

Backfill and Restoration Plan [BRP, (USACE, 2024a)] – The BRP presents the means and methods for completing site restoration in accordance with the USACE SOWs (USACE, 2023). The BRP describes the placement and machine compaction of backfill materials, placement and grading of topsoil to surrounding contours, amending topsoil to produce optimal conditions for vegetative cover, temporary and permanent seeding, and sedimentation and erosion controls.

Contractor Quality Control Plan [CQCP, (USACE, 2024b)] – The CQCP provides procedures to assure that work activities comply with the SOWs (USACE, 2023), the other supporting project work plans and USACE Quality Control (QC) requirements.

3.0 REGULATORY REQUIREMENTS

The following sections provide a review of the requirements determined to be applicable as well as relevant and appropriate for the site remediation, and presents a compilation of the specific laws,



rules, regulations, and standards governing safety and operational requirements to be followed during the actual execution of the remedial action.

3.1 ARARS for the Excavation Remedial Activities

The HCCS is contaminated with residual radioactive material that is present as a result of historic uranium processing. This processing occurred prior to 1978, the year in which the US Nuclear Regulatory Commission (NRC) was empowered to regulate such materials. Therefore, NRC requirements are not applicable to this Site and the selected remedial action. Although the HCCS never was required to obtain an NRC license, USACE determined that ARARs to be addressed as the basis for the remedial action include those governing the decommissioning of sites and the radiological criteria for license termination (USACE, 2021). Title 10, Part 20 of the CFR promulgates the standards for protection against radiation. Specifically, 10 CFR 20, Subpart E, provides the criteria and requirements for the termination of licensure of an NRC site and the radiological release requirements for the unrestricted use of a site. The State requirement that corresponds to the Federal regulations under 10 CFR 20, Subpart E, is found in Ohio Administrative Code (OAC) 3701:1-38 Rule 22, titled: Decommissioning. This regulation is similar to the Federal requirement under 10 CFR 20, Subpart E, with the exception that it is more stringent than 10 CFR 20, Subpart E, and does not allow decommissioning with license termination for anything other than unrestricted use (USACE, 2021).

Under both Federal and State requirements, a facility is considered to be acceptable for unrestricted use if residual radioactivity exceeding background results in a total effective dose equivalent (TEDE) does not exceed 25 millirem per year to the average member of a critical group (e.g., on-site construction worker), and must further reduce residual radioactivity to ALARA levels. To meet these requirements, remedial activities to be completed by EFS and its subcontractors will be conducted in accordance with the statutory and regulatory requirements discussed in Section 3.2, below, as well as USACE guidelines and EFS Operating Procedures referenced in this and other project work plans.

3.2 Requirements for the Execution of Removal Action

EFS and its subcontractors will adhere to applicable laws, rules, regulations, and standards of Federal, state, and local authorities in executing remediation at the HCCS. The following sections summarize the regulatory authorities and agencies that serve as the framework for the project execution. These laws, regulations, standards, and overseeing agencies are presented and defined in this section, while the analysis of the laws, regulations, and standards and their application to the site are presented in Section 3.3.

3.2.1 Permitting

Pursuant to Section 121(e) of CERCLA (42 USC 9621[e]), permits typically required under Federal and State laws or statutes (such as the Clean Water Act or Clean Air Act), are not required for the portion of remedial actions conducted on site. However, on-site operations completed by USACE and its contractors (EFS) must comply with all substantive requirements of Federal, State, and local laws and regulations.

Permits required for off-site operations (e.g., wastewater discharge and solid waste transport) will be obtained through the appropriate regulating entities. Additional details on the permits



associated with off-site waste management and handling are discussed in the UFP-QAPP/SAP (USACE, 2024h) and the WMTDP (USACE, 2024k).

3.2.2 Statutory Authority

This section introduces the major safety, environmental, and preservation statutes/laws that are the framework for conducting remedial actions at radiological and chemical-contaminated sites. These laws are the foundation for providing agencies with the authority to develop and implement regulations, guidance, and standards affecting radiation protection and cleanup of radioactive waste.

Atomic Energy Act of 1954 (AEA), Public Law 83-703, as amended. Through the formation of the AEC, this Act promulgated the basic criteria for the development, management, processing, and utilization of radioactive materials in a manner that protects public health and the environment. In 1974, under the Energy Reorganization Act (ERA) the AEC was reorganized to separate the functions of national defense and development and energy-related work, which was established under what is now the DOE, and non-defense related radioactive material regulation under the then newly-created NRC. The NRC regulates source, by-product, and special nuclear material, as defined in the AEA. Under the AEA, source material is defined, in part, as the physical or chemical form of thorium or uranium (or combinations thereof), provided that the uranium has not been enriched in the isotope Uranium-235. Therefore, the Site COCs (Th-230, Th-232, and Total U) are considered source materials, whereas Ra-226 is considered naturally- occurring radioactive material (NORM).

National Environmental Policy Act of 1969 (NEPA), 42 USC §§ 4321-4347, 40 CFR 1500-1508. The NEPA is the national charter for protecting the environment, establishing policy, setting goals, and providing the means for carrying out policy. The NEPA process is initiated prior to the undertaking of any major Federal action that may have a significant impact on the environment. The process typically includes the completion of several milestone documents including the Notice of Intent (NOI), Environmental Impact Statement (EIS), Environmental Assessment (EA), and may result in a Finding of No Significant Impact (FONSI), Categorical Exclusion (CX), or may find that impact is anticipated and must be addressed.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC §§ 9601-9675, 40 CFR 300 and 302, as amended. The CERCLA serves as the basis for the cleanup of abandoned or closed waste sites, as well as providing the requirements for the response to uncontrolled releases of hazardous substances to the environment. Under CERCLA, the process of evaluating a site and its existing or potential hazards was established. This includes the process of preparing a site-specific Remedial Investigation/Feasibility Study (RI/FS) and, based on alternatives present therein, completing remedial action to address the release or threat of release of contamination. The Act authorizes USEPA to complete remedial action in response to releases or substantial threats of releases of hazardous substances into the environment.

Superfund Amendments and Reauthorization Act (SARA), 42 USC §§ 9601-9675, 40 CFR 300. Passage of SARA did not change the basic structure of CERCLA, but modified existing requirements related to topics including remedial alternative evaluation and providing for the long-term review of the effectiveness of an implemented remediation. This Act also promulgated new standards for the health and safety of workers associated with hazardous waste sites.



Resources Conservation and Recovery Act (RCRA), Public Law 94-580, 40 CFR 239 to 280. The RCRA provides for the regulation of solid and hazardous waste, requiring detailed management of waste from generation to final disposal, under the “cradle to grave” management system. This process was established to prevent new uncontrolled hazardous releases from occurring, and provided better protection for human health and the environment. Under RCRA, solid and hazardous wastes are defined and classified, and the processes for conducting and permitting the treatment, storage, and disposal of these wastes are set forth. Further, the duties of hazardous waste generators and transporters are established.

Under the definitions of RCRA, source, by-product, or special radioactive materials arising out of the AEA are expressly excluded from the definition, and thus from regulation under RCRA pursuant to 40 CFR 261.4 (a)(4). However, NORM is not specifically excluded under this section. As discussed above, the radiological COCs Th-230, Th-232, and Total U are considered exempt from RCRA, whereas Ra-226 is not, and must be evaluated for the purposes of complying with the solid and hazardous waste regulations. If, however, an exempt radiological waste also contains listed hazardous waste or exhibits characteristics of hazardous waste, the waste would be determined to be mixed waste and the regulations of both AEA and RCRA would apply.

Toxic Substances Control Act (TSCA), 15 USC §§ 2601-2671, 40 CFR 700 through 766. TSCA regulations pertaining to polychlorinated biphenyls (PCBs) are presented in 40 CFR 761. The TSCA program regulates the manufacture, distribution in commerce, processing, use, and disposal of chemical substances and mixtures. Like RCRA, radioactive materials covered by the AEA are expressly excluded from TSCA, although, also similar to RCRA, naturally occurring materials are not. The TSCA typically becomes involved with an AEA site when other chemicals, such as asbestos, radon, or PCBs are identified and require management.

Federal Water Pollution Control Act Amendments (FWPCA) of 1972 and as amended in 1977, commonly referred to as the Clean Water Act (CWA), 33 USC §§ 1251-1387, 40 CFR 122 to 131. The CWA established interim water quality goals aimed at restoring and maintaining the chemical, physical, and biological integrity of the nation’s surface waters. The objective of the CWA is to prevent, reduce, and eliminate discharges of pollutants by developing a national monitoring program and procedures for interfacing with state programs of a similar nature. Major requirements of the CWA include establishing discharge effluent limits, establishing the National Pollutant Discharge Elimination System (NPDES) permitting system as well as pretreatment requirements for industrial discharges to publicly-owned treatment works (POTWs), and setting toxicity based water quality standards.

Clean Air Act (CAA), 42 USC §§ 7601-7671Q, 40 CFR 50 to 96. The CAA protects and enhances the nation’s air quality through the establishment of the national ambient air quality standards, new source performance standards, and monitoring and reporting provisions. Under this Act, radionuclides are defined as a hazardous air pollutant.

Safe Drinking Water Act (SDWA), 42 USC §§ 300f et seq., 40 CFR 141-149. The SDWA was established to protect the quality of drinking water in the US, focusing on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorizes the USEPA to establish safe standards for water quality through the promulgation of the national primary and secondary drinking water standards, and the Act requires all owners or operators of public water systems to comply with the primary standards.



Emergency Planning and Community Right-to-know Act (EPCRA), 42 USC § 11001 et seq., 40 CFR 355-372. The EPCRA was established to help local communities protect public health, safety and the environment from chemical hazards. The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, along with information on the chemical uses and releases into the environment. Emergency planning and emergency notifications can also be required under EPCRA under specific circumstances.

Endangered Species Act (ESA), 7 USC §§ 136, 16 USC §§ 460 et seq. The ESA provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The US Fish and Wildlife Service is charged with maintaining a list which includes 632 endangered species (326 are plants) and 190 threatened species (78 are plants). Endangered or threatened species must be identified and subsequent activities must be coordinated with the Fish and Wildlife Service prior to conducting actions at sites. Mitigation measures must be considered and implemented in cases where the activity may cause adverse effects on the identified species.

Occupational Safety and Health Act, 29 USC 651, et seq., 29 CFR 1900. The Occupational Safety and Health Act was passed to ensure worker and workplace safety and resulted in the creation of the Occupational Safety and Health Administration (OSHA). The goal of the law was to ensure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. This Act also created the National Institute for Occupational Safety and Health (NIOSH) as a research institution to establish standards for workplace health and safety. The Administration is a division of the US Department of Labor and oversees the administration of the Act and enforces standards in all 50 states.

Hazardous Materials Transportation Act (HMTA), as amended by the Hazardous Materials Transportation Uniform Security Act, 49 USC §§ 1801-1819. These Acts establish requirements for transportation of hazardous materials, including procedures and requirements for classification, packaging, labeling, marking, shipping, and placarding of hazardous materials.

National Historical Preservation Act (NHPA) as amended, 16 USC §§ 470. The NHPA of 1966, as amended, establishes a program for the preservation of historic properties throughout the US. The Act created the National Register of Historic Places, State Historic Preservation Offices and the Section 106 Review Process, and requires the presence of historic buildings, structures, or places be evaluated prior to undertaking site activities.

Archaeological Resources Protection Act (ARPA), 16 USC §§ 470(a). The ARPA defines archaeological resources as any material remains of past human life or activities that are of archaeological interest and at least 100 years old, requiring Federal permits for their excavation or removal.

Native American Graves Protection and Repatriation Act (NAGPRA), 25 USC §§ 3001- 3013. The NAGPRA requires the protection and repatriation of Native American cultural items found or taken from Federal or tribal lands, and further requires repatriation of cultural items controlled by Federal agencies or museums receiving Federal funds.

Presidential Documents:

- *Reorganization Plans*

Reorganization Plan No. 3 of 1970: established the USEPA and gave it a role in establishing “generally applicable environmental standards for the protection of the general environment from radioactive material.”

Reorganization Plan No. 1 of 1980: strengthened the executive and administrative roles of the NRC Chairman, particularly in emergencies, transferring to the Chairman “all the functions vested in the Commission pertaining to an emergency concerning a particular facility or materials regulated by the Commission.” This Reorganization Plan also provided that all policy formulation, policy-related rulemaking, orders, and adjudications would remain vested with the full Commission.

- *Executive Orders*

Floodplain Management, Executive Order No. 11988: requires Federal agencies to evaluate the potential effects of actions they may take in a floodplain area, to the maximum extent possible, with respect to adverse impacts associated with the direct and indirect development of these areas. Regulation of floodplain management is provided at 40 CFR 6.302(b).

Protection of Wetlands, Executive Order No. 11990: requires Federal agencies to evaluate the potential effects of actions on wetlands and to avoid undertaking any actions, to the maximum extent possible, that would negatively impact wetlands. Regulation of wetland protection is provided in 40 CFR 6.302(a). Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the US without a permit from USACE.

3.2.3 Federal Regulatory Agencies

The following Federal and State agencies have requirements promulgated that will be followed during the completion of this remedial action, and may themselves have regulatory oversight for one or more of the activities to be performed at the HCCS:

NRC – Responsibilities of NRC include regulatory and oversight duties associated with radiological materials and operations other than national defense or energy research and development. Specifically, NRC provides the standards for licensing, radiation safety, and protection for source, byproduct, and special nuclear materials licenses. The NRC also oversees the requirements for packaging, transporting, and disposal of radioactive waste.

OSHA – The OSHA regulations apply to the health and safety of workers on hazardous, toxic, and radioactive sites. Standards are promulgated by OSHA for both general industry, as well as specifically for the construction industry, and includes the requirements for training of personnel that will be involved with hazardous waste site clean-up projects.

USEPA – The USEPA promulgates the standards under the authority of RCRA and CERCLA, which define solid and hazardous waste and provide for the remedial investigations and actions to be completed to address hazardous waste releases. The USEPA also regulates the standards of TSCA, CWA, CAA, and SDWA, which are defined above. Objectives are the protection of the public and environment by establishing limits on pollutant concentrations in air, water, and soil environments.



DOT – The DOT oversees transportation of goods and commerce over Federal highway, air, railroad, and maritime routes. Specific regulations apply to the packaging, labeling, and all intrastate and interstate shipment of hazardous wastes, as well as Department of Defense (DoD)-defined low-level radioactive waste [less than 2,000 picoCuries per gram (pCi/g)] and mixed (radioactive and RCRA hazardous) waste.

DoD and USACE – The US Army is the DoD executive agent for managing the disposal of the majority of DoD radioactive waste (with the exception of the Navy’s propulsion program) and overseeing the disposal and health and safety issues involving radioactive materials at DoD sites. Under the FUSRAP, USACE is responsible for the oversight of sites such as the HCCS.

3.2.4 State Regulatory Agencies

State of Ohio agencies with regulations that may apply to removal actions at the Harshaw Site include the Ohio Department of Health (ODH), Ohio Department of Natural Resources (ODNR), State Emergency Response Commission (SERC), and the Ohio Environmental Protection Agency (Ohio EPA). Applicable regulations and standards related to the remedial action are found in the Ohio Administrative Code (OAC) and the Ohio Revised Code (ORC).

3.3 Summary of Applicable Requirements and Standards

Table 3-1 is a detailed list of the applicable laws, rules, regulations, and standards that will be followed during project execution, and includes the title, regulatory agency and reference, and the major guideline, rule, or standard that is promulgated. Table 3-1 specifically includes laws and regulations from the USEPA, OSHA, and Ohio EPA that are related to various aspects of excavation, transportation, disposal, and documentation activities to be performed. The table also includes reference to the supporting work plans prepared for this project, as identified in Section 2.0 of this Plan. These supporting work plans present the means and methods EFS will use to conduct the remedial action in compliance with the applicable laws, regulations, and standards presented in this RCP. Table 3-1 also includes the regulations and standards of the DOT and the ODH regarding the transport and documentation of the waste generated by the remedial action. Specific regulations addressing radiation protection, handling, transportation, and disposal are applicable because of the nature of contamination identified in previous investigations and targeted for this remedial action. Regulations addressing hazardous material not defined as radioactive are relevant and appropriate because of the potential presence of these materials (e.g., organic compounds, such as PCBs, or inorganic compounds, such as lead) as a result of former industrial activities at the Site, and due to the potential for small-scale releases associated with equipment used for excavation and transportation.

Table 3-2 lists the relevant USACE Engineer Manuals (Ems), Engineer Pamphlets (Eps), and Engineer Regulations (Ers) applicable to hazardous, toxic, and radioactive waste (HTRW) sites and potentially applicable to the remedial action to be completed at the HCCS.

4.0 REFERENCES

10 CFR 19, 2008, “Notices, Instructions and Reports to Workers: Inspection and Investigations, Code of Federal Regulations, Office of the Federal Register, January 1, 2008.



10 CFR 20, 2008, “Standards for Protection Against Radiation,” Code of Federal Regulations, Office of the Federal Register, January 1, 2008.

10 CFR 71, 2010, “Packaging and Transportation of Radioactive Material,” Code of Federal Regulations, Office of the Federal Register, January 1, 2010.

10 CFR 850, “Chronic Beryllium Disease Prevention Program,” Code of Federal Regulations, Department of Energy

29 CFR 1904, 2011, “Recording and Reporting Occupational Injuries and Illnesses, Code of Federal Regulations, Office of the Federal Register, July 1, 2011.

29 CFR 1910, 2009, “Labor,” July 1, 2009.

29 CFR 1926, 2001, “Safety and Health Requirements for Construction,” Code of Federal Regulations, Office of the Federal Register, Code of Federal Regulations, Office of the Federal Register, July 1, 2001.

40 CFR 6, 2000, “Procedures for Implementing the Requirements of the Council on Environmental Quality on the National Environmental Policy Act,” Code of Federal Regulations, Office of the Federal Register, July 1, 2000.

40 CFR 50, 2008, “National Primary and Secondary Ambient Air Quality Standards,” Code of Federal Regulations, Office of the Federal Register, July 1, 2008.

40 CFR 61, 2002, “National Emission Standards for Hazardous Air Pollutants,” Code of Federal Regulations, Office of the Federal Register, July 1, 2002.

40 CFR 110, 2011, “Discharge of Oil,” Code of Federal Regulations, Office of the Federal Register, July 1, 2011.

40 CFR 116, 2011, “Designation of Hazardous Substances,” Code of Federal Regulations, Office of the Federal Register, July 1, 2011.

40 CFR 122, 2008, “EPA Administered Permit Programs: The National Pollutant Discharge Elimination System,” Code of Federal Regulations, Office of the Federal Register, July 1, 2008.

40 CFR 123, 2011, “State Program Requirements,” Code of Federal Regulations, Office of the Federal Register, July 1, 2011.

40 CFR 260, 2001, “Hazardous Waste Management System: General,” Code of Federal Regulations, Office of the Federal Register, July 1, 2001.

40 CFR 261, 2001, “Identification and Listing of Hazardous Waste,” Code of Federal Regulations, Office of the Federal Register, July 1, 2001.

40 CFR 262, 2012, “Standards Applicable to Generators of Hazardous Waste,” Code of Federal Regulations, Office of the Federal Register, July 1, 2001.

40 CFR 263, 2012, Standards Applicable to Transporters of Hazardous Waste,” Code of Federal Regulations, Office of the Federal Register, July 1, 2012.

40 CFR 264, 2001, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities,” Code of Federal Regulations, Office of the Federal Register, July 1, 2012.



40 CFR 265, 2001, “Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, And Disposal Facilities,” Code of Federal Regulations, Office of the Federal Register, July 1, 2012.

40 CFR 268, 2012, “Land Disposal Restrictions,” Code of Federal Regulations, Office of the Federal Register, July 1, 2012.

40 CFR 270, 2012, “EPA Administered Permit Programs: The Hazardous Waste Permit Program,” Code of Federal Regulations, Office of the Federal Register, July 1, 2012.

40 CFR 300, 2004, “National Oil and Hazardous Substances Pollution Contingency Plan,” Code of Federal Regulations, Office of the Federal Register, July 1, 2004.

40 CFR 745, 2004, “Lead-based Paint Poisoning Prevention in Certain Residential Structures,” Code of Federal Regulations, Office of the Federal Register, July 1, 2004.

49 CFR 171, 2012, “General Information, Regulations, and Definitions,” Code of Federal Regulations, Office of the Federal Register, October 1, 2012.

49 CFR 172, 2011, “Hazardous Materials Table,’ Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements,” Code of Federal Regulations, Office of the Federal Register, October 1, 2011.

49 CFR 173, 2010, “Shippers-General Requirements for Shipments and Packagings,” Code of Federal Regulations, Office of the Federal Register, October 1, 2010.

49 CFR 174, 2011, “Carriage by Rail,” Code of Federal Regulations, Office of the Federal Register, October 1, 2011.

49 CFR 177, 2011, “Carriage by Public Highway,” Code of Federal Regulations, Office of the Federal Register, October 1, 2011.

49 CFR 178, 2011, “Specifications for Packaging, Code of Federal Regulations, Office of the Federal Register, October 1, 2011.

15 USC § 2601 et seq., 1976, “The Toxic Substances Control Act (TSCA) of 1976,” United States Code, October 11, 1976.

25 USC § 3001 et seq., 1990, “Native American Graves Protection and Repatriation Act,” United States Code, November 16, 1990.

29 USC § 651 et seq., 1970, “Occupational Safety and Health Act of 1970,” United States Code.

33 USC § 1251 et seq., 1972, “Federal Clean Water Act,” United States Code.

40 USC § 333 et seq., “Contract Work Hours and Safety Standards Act,” United States Code, revised April 2009.

42 USC § 2011 et seq., 1954, “Atomic Energy Act of 1954—Congressional Declaration of Policy,” United States Code, August 30, 1954.

42 USC § 5801, 1974, “Energy Reorganization Act of 1974,” United States Code, October 11, 1974.



42 USC § 6901 et seq., 1976, “Resource Conservation and Recovery Act (Solid Waste Disposal Act),” United States Code, October 21, 1976.

42 USC § 7401 et seq., 1990, “Air Pollution and Prevention Control – Federal Clean Air Act of 1990,” United States Code, November 15, 1990.

42 USC § 9601 et seq., 1980, “Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA/Superfund),” United States Code, December 11, 1980.

43 USC § 1601 et seq., 1979, “Archaeological Resources Protection Act,” United States Code, October 31, 1979.

49 USC § 1801 et seq., 1990, “Hazardous Materials Transportation Uniform Security Act,” United States Code, November 16, 1990.

EPA, NRC, DoD, and DOE, 2000, Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM), EPA 402-R-97-016, Rev. 1, U.S. Environmental Protection Agency, U.S. Nuclear Regulatory Commission, U.S. Department of Defense, and U.S. Department of Energy, August 2000.

Executive Order 11988, 1977, “Floodplain Management,” the Whitehouse, Office of the Press Secretary, May 24, 1977.

Executive Order 11990, 1977, “Protection of Wetlands,” the Whitehouse, Office of the Press Secretary, May 24, 1977.

OAC 3701:1-38-01, 2015, “Definitions,” Ohio Administrative Code, State of Ohio, July 25, 2013.

OAC 3701:1-38-22, 2015, “Decommissioning,” Ohio Administrative Code, State of Ohio, August 30, 2015.

OAC 3745-1, 2014, “Water Quality Standards,” Ohio Administrative Code, State of Ohio, July 1, 2014.

OAC 3745-9-09, 2016, “Well development and pumping test,” Ohio Administrative Code, State of Ohio, June 13, 2016.

OAC 3745-25-02, 2014, “Ambient Air Quality Standards,” Ohio Administrative Code, State of Ohio, December 1, 2014.

ORC 3734.02, 2015 “Rules for inspection and licensing of solid waste facilities,” Ohio Revised Code, State of Ohio, “September 29, 2015.

ORC 3748, 2004, “Radiation Control Program,” Ohio Revised Code, State of Ohio, January 1, 2004.

ORC 6111.04, 2016, “Water pollution and sludge management violations prohibited,” Ohio Revised Code, State of Ohio, January 1, 2016.

Public Law 99-499, 1986, “Superfund Amendments and Reauthorization Act of 1986 (SARA),” 100 Statutes 1728, Public Law, October 17, 1986.

USACE, 2009, Former Harshaw Chemical Site Remedial Investigation, Remedial Investigation Report. Prepared by Science Applications International Corporation, December.



USACE, 2012, Feasibility Study Report Revision 0 Former Harshaw Chemical Company Site Cleveland, Ohio, September 2012.

USACE, 2018, Feasibility Study Addendum for the Former Harshaw Chemical Company Site Cleveland, Ohio, September 2018.

USACE, 2021, Record of Decision for Operable Unit (OU)-1 and OU-2 Former Harshaw Chemical Company Site Cleveland, Ohio, September 2021.

USACE, 2023, Performance Work Statement, Remediation of Operable Units 1 & 2, U.S. Army Corps of Engineers, January 2023.

USACE, 2024a, Site Operations Plan/Traffic Control Plan/Backfill & Restoration Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, U.S. Army Corps of Engineers, Cleveland, Ohio.

USACE, 2024b, Contractor Quality Control Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, U.S. Army Corps of Engineers, Cleveland, Ohio.

USACE, 2024c, Accident Prevention Plan/Site Safety and Health Plan/Radiation Protection Plan/Contamination Control Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, U.S. Army Corps of Engineers, Cleveland, Ohio.

USACE, 2024d, Subsurface Investigation Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, U.S. Army Corps of Engineers, Cleveland, Ohio.

USACE, 2024e, Storm Water Pollution Prevention Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, U.S. Army Corps of Engineers, Cleveland, Ohio.

USACE, 2024f, USEPA Tier 1 Qualified Facility Spill Prevention, Control, and Countermeasure Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, U.S. Army Corps of Engineers, Cleveland, Ohio.

USACE, 2024g, Well Decommissioning Plan/Well Installation Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, U.S. Army Corps of Engineers, Cleveland, Ohio.

USACE, 2024h, Uniform Federal Policy Quality Assurance Project Plan/Sampling Analysis Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, Cleveland, Ohio.

USACE, 2024i, Final Status Survey Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, Cleveland, Ohio.

USACE, 2024j, Water Management Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, Cleveland, Ohio.

USACE, 2024k, Waste Management, Transportation, and Disposal Plan for the Former Harshaw Chemical Company Site Remediation of Operable Units 1 and 2 Remediation Project, Cleveland, Ohio.


Table 3-1: Potential Regulatory Requirements for the Former Harshaw Chemical Company Site Remediation

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
FEDERAL:				
OSHA	Occupational Safety and Health Standards, General Industry	29 CFR 1910	Specifies the health and safety requirements applicable to the conditions, practices, means, methods, and operations for general industry working conditions. Includes § 1910.120, Hazardous Waste Operations and Emergency Response (HAZWOPER), which sets forth training and safety requirements specific to CERCLA clean-up sites, uncontrolled hazardous waste sites, operations at Transportation, Storage, Disposal and Disposal (TSD) facilities, and emergency response to releases or threats thereof for hazardous waste.	Provides the general guidelines that will be followed for safe conduct of site work and worker protection [i.e., excavation safety, personal protective equipment (PPE), heavy equipment operation, material handling and storage, use of tools, and electrical/fire safety]. The APP/SSHP (USACE, 2024c) provides an analysis of the site hazards and details established procedures for providing a safe and healthy working environment for personnel. Remediation workers will have attended and successfully passed the 40-Hour HAZWOPER training course (required under § 1910.120©, including annual eight-hour refresher course within one calendar year of site mobilization. Certificates documenting course attendance and medical fit-for-duty forms will be maintained on site. The Site Manager will also have eight-hour supervisory training. If personal identifying information is collected in addressing this requirement, it will be protected in accordance with the Health Insurance Portability and Accountability Act.
OSHA	Safety and Health Regulations for Construction	29 CFR 1926	Provides health and safety criteria similar to § 1910, but the § 1926 criteria are specific to the construction industry, pursuant to the “Contract Work Hours and Safety Standards Act” (40 USC § 333 et seq.).	Health and safety requirements under § 1926 will be followed at all times, including: sanitation, housekeeping, first aid, electrical/fire safety, emergency action plans, material handling, PPE, and tool use. See the APP/SSHP (USACE, 2024c).


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
OSHA	Recording and Reporting Occupational Injuries and Illnesses	29 CFR 1904	Provides the criteria and methodologies for determining, recording, and reporting work- related illnesses, injuries, and fatalities.	EFS will maintain records pursuant to 29 CFR Part 1904 related to the HCCS. Records will be kept on site at all times during remediation, and will include medical surveillance, training certifications, and accident investigation/reporting forms. Corporate data will also be made available for inspection by conspicuous placement of OSHA 300 Logs. Following completion of the project, these records will be maintained for a minimum of three years in EFS's corporate office records. If personal identifying information is collected in addressing this requirement, it will be protected in accordance with the Health Insurance Portability and Accountability Act.
NRC	Notices, Instructions and Reports to Workers: Inspection and Investigations	10 CFR 19	Establishes requirements for notices, instructions, and reports to be provided by licensed employers to workers employed in radiological working conditions. Specifically, pursuant to §19.12, employers shall instruct employees in the areas of health protection, radioactive material storage and transfer, reporting requirements, and responsibilities related to radiological employment.	As discussed in the APP/SSHP/(USACE, 2024c), employees and subcontractors who will be involved with on-site operations that may result in exposure to radiological materials will have been trained in accordance with EFS's Radiation Safety Program.


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
NRC	Standards for Protection Against Radiation	10 CFR 20	Applies to the decommissioning of facilities licensed under this chapter and release of part of a facility or site for unrestricted use, as well as other facilities subject to the Commission's jurisdiction under the AEA of 1954, as amended, and the Energy Reorganization Act of 1974, as amended.	10 CFR 20 was used to develop the cleanup criteria for the FUSRAP radiological COCs in the HCCS Record of Decision for OU-1 and OU-2. The Final Status Survey Plan (FSSP) (USACE, 2024i) defines the process for ascertaining cleanup consistent with these standards.
NRC	Domestic Licensing of Source Material	10 CFR 40	Establishes the procedures and criteria for NRC issuance of licenses to receive, possess, use, transfer, or deliver source and byproduct materials.	Pursuant to § 40.13, Unimportant Quantities of Source Material, this Part does not apply when the source material present in the waste is by weight less than one-twentieth of 1 percent (0.05 percent) of the weight of the total waste mixture.
NRC	Licensing Requirements for Land Disposal of Radioactive Waste	10 CFR 61	Establishes, for land disposal of licensed radioactive waste, the procedures, criteria, and terms and conditions upon which NRC issues licenses for the disposal of radioactive wastes containing byproduct, source, and special nuclear material received from other persons.	This section applies to licensed material, and therefore does not apply to the wastes (soil and debris) generated from the remedial actions at the HCCS.
NRC	Packaging and Transportation of Radioactive Material	10 CFR 71	Establishes requirements for packaging, preparation for shipment, and transportation of licensed material.	The material to be excavated and disposed of might be regulated as a DOT Class 7 (radioactive) hazardous material.
USEPA	National Primary and Secondary Ambient Air Quality Standards	40 CFR 50	Establishes numerical values for air pollutants that must be met at air emission sources for the respective pollutant. Specifically, 40 CFR Part 50.6 establishes values for dust emissions (Particulate Matter -PM10). Part 50.7 establishes values for smaller particulate matter - PM2.5.	Dust suppression activities (e.g., water mist application in excavations, waste handling areas, and haul roads) will be used to minimize dust at the Site. Air monitoring to verify effectiveness will be performed during remediation as described in the AAP/SSHP (USACE, 2024c) and UFP-QAPP/SAP (USACE, 2024h).


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
USEPA	National Emission Standards for Hazardous Air Pollutants	40 CFR 61	The National Emission Standards for Hazardous Air Pollutants (NESHAPS) regulations (40 CFR 61) identify hazardous air pollutants and their application to stationary sources for those specific pollutants.	EFS will implement dust suppression to minimize dust migration from both a radiological and chemical standpoint. EFS will perform air monitoring to verify effectiveness during remediation as described in the APP/SSHP (USACE, 2024c), the CCP (USACE, 2024c), and the UFP-QAPP/SAP (USACE, 2024h).
USEPA	Discharge of Oil	40 CFR 110	Establishes the definition of and reporting requirements for discharges of oil to navigable waters of the US. Oil discharges are defined as those which result in either a violation of applicable water quality standards, or cause a film or sheen upon surface water or adjoining shorelines.	EFS will follow good housekeeping and materials management practices to prevent oil spills. Practices will include monitoring refueling operations, storing flammable fuels (gasoline cans) in approved storage lockers with secondary containment, having large quantities of diesel fuel for equipment delivered to the site rather than storage on-site, having site personnel at refueling locations at all times during on-site refueling, and using spill/drip pans. If spills occur, workers will follow emergency procedures established in the APP/SSHP (USACE, 2024c), and the National Response Center (800-424-8802) will be notified as required in § 110.6.
USEPA	Oil Pollution Prevention	40 CFR 112	Establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation-related on-shore and off-shore facilities into or upon the navigable waters of the US or adjoining shorelines.	Storage/use of oil in quantities above the thresholds as defined in 40 CFR Part 112 is not anticipated. Accordingly this Part does not apply to this project. Fuel oil for equipment will be obtained by using a product delivery vendor, or by routine purchases using DOT-approved truck-mounted containers.


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
USEPA	Designation of Hazardous Substances	40 CFR 116	Designates hazardous substances pursuant to the Clean Water Act, and applies to discharges of the substances listed in Tables 116.4(a) and 116.4(b) of in 40 CFR Part 116.4.	Minor quantities of the listed chemicals (§ 116, Table 116.4) will be used in conjunction with this remedial action. EFS will use them to decontaminate field sampling equipment for select samples for chemical analysis. Limited quantities (less than 5 gal) will be stored on-site in locked cabinets approved for these chemicals.
USEPA	Determination of Reportable Quantities for Hazardous Substances	40 CFR 117	Sets forth a determination of the reportable quantity (RQ) for each substance designated as hazardous in 40 CFR 116. The regulation applies to quantities of designated substances equal to or greater than the RQs, when discharged into or upon the navigable waters of the US or adjoining shorelines.	The minor quantities of the listed chemicals used on site (less than five gallons each) are well below the RQ thresholds; therefore these reporting requirements are not applicable to this project.
USEPA	USEPA Administered Permit Program: The National Pollutant Discharge Elimination System (NPDES)	40 CFR 122 and 40 CFR 123	Promulgates the NPDES program for approved and permitted discharges to waterways and delegates authority of the NPDES program to approved State programs for State-level management.	Specifically excluded from this regulation is “the introduction of sewage, industrial wastes, or other pollutants into publicly-owned treatment works by indirect dischargers” (§ 122.3(c), Exclusions). Local regulations by the Ohio EPA and Northeast Ohio Regional Sewer District Publicly-Owned Treatment Works (POTW) or by other POTWs that may be utilized for management of waste water will be followed, as applicable. Additional details are listed in the Water Management Plan (USACE, 2024j).


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
USEPA	National Primary Drinking Water Regulations <i>and</i> National Secondary Drinking Water Regulations	40 CFR 141 <i>and</i> 40 CFR 143	Establishes the primary and secondary drinking water regulations and maximum contaminant levels (MCLs) for substances pursuant to the <i>Safe Drinking Water Act</i> . Provides tabulated values of the MCLs.	This Part does not apply as potable water will not be derived from on-site sources (e.g., supply wells will not be installed).
USEPA	RCRA Hazardous Waste Management	40 CFR 260 through 265	Sets forth provisions, terms, and standards for generators, transporters, and owners/operators of treatment, storage, or disposal facilities with respect to hazardous waste.	It is anticipated that a portion of the waste to be excavated and disposed of may be mixed waste. Monitoring will be performed during remediation, supplemented by laboratory analysis, to evaluate the applicability of the RCRA hazardous waste regulations when suspect waste is encountered during excavation in accordance with the WMTDP (USACE, 2024k) and UFP-QAPP/SAP (USACE, 2024h).
USEPA	Land Disposal Restrictions	40 CFR 268	Identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.	It is anticipated that a portion of the waste to be excavated and disposed of may be mixed waste. Monitoring will be performed during remediation, supplemented by laboratory analysis, to evaluate the applicability of the land disposal restrictions when suspect waste is encountered during excavation in accordance with the WMTDP (USACE, 2024k) and UFP-QAPP/SAP (USACE, 2024h). Land disposal restrictions will be satisfied per the requirements of the treatment storage and disposal facility. ⁴


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
USEPA	USEPA Administered Permit Programs: The RCRA Hazardous Waste Permit Program	40 CFR 270	Establishes the permit regulations and provisions for the issuance of a Hazardous Waste Permit under Subtitle C of the <i>Solid Waste Disposal Act</i> and covers basic USEPA permitting requirements, such as application requirements, standard permit conditions, and monitoring and reporting requirements for “treatment, storage, and/or disposal” (TSD) of RCRA hazardous waste.	It is not anticipated that any treatment of RCRA hazardous waste will occur on-site. EFS will ensure that any off-site treatment, storage, and disposal facility(ies) will have the necessary operating permits, as discussed in the WMTDP (USACE, 2024k).
USEPA	Standards for Universal Waste Management	40 CFR 273	Establishes standards for management of batteries, pesticides, mercury-containing equipment, and lamps, as described in Part 273.	Universal waste standards will be followed where those waste types may be generated as part of the remedial efforts at the HCCS.
USEPA	Standards for Management of Used Oil	40 CFR 279	Establishes standards for the management of used oil.	Used oil standards will be followed where used oil may be generated and managed as part of the remedial efforts at the HCCS.
USEPA	National Oil and Hazardous Substances Pollution Contingency Plan	40 CFR 300	Establishes the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), whose purpose is to provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.	Under the FUSRAP, USACE is provided the authority to conduct remedial actions at sites where specific radionuclides from specific sources have been released. Remediation activities will be performed consistent with the NCP and in accordance with the project work plans referred.


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
USEPA	Emergency Planning and Notification	40 CFR 355	Establishes requirements for a facility to provide information necessary for developing and implementing State/local chemical emergency response plans, and requirements for emergency notification of chemical releases.	This part is not anticipated to be applicable to the site because activities conducted at the Site are not expected to involve use or storage of extremely hazardous substances (EHS) in excess of the threshold planning quantities (TPQ) that would require consideration under this part. EHS chemicals may be used, but at quantities below the TPQs.
USEPA	Hazardous Chemical Reporting: Community Right-to-Know	40 CFR 370	Establishes reporting requirements for providing the public with information on the hazardous chemicals in their communities. Requirements in this part consist of chemical inventorying and reporting.	This part is not anticipated to be applicable to the Site because the activities conducted at the Site are not expected to involve the use or storage of chemicals/materials having a Safety Data Sheet (SDS) at levels above the thresholds specified at 40 CFR Part 370.10.
USEPA	Toxic Chemical Release Reporting: Community Right-to-Know	40 CFR 372	Sets forth requirements for the submission of information relating to the release of toxic chemicals. The toxic chemical release inventory information is made available to the general public and communities surrounding the covered facilities.	This part is not anticipated to be applicable to the Site because the activities conducted at the Site are not expected to involve the “manufacturing”, “processing” or “otherwise use” of regulated chemicals for the toxic release inventory reporting in excess of the applicable chemical reporting threshold values.
USEPA	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions	40 CFR 761	Provides the procedures for the management of PCBs and PCB-containing materials (in excess of specific concentrations), and includes regulations governing the disposal and remediation of PCB-contaminated waste (§ 761.60 and § 761.61)	Based on historical data (soil samples) collected to date, the waste generated as part of the remedial action is not anticipated to contain PCBs at concentrations that exceed concentrations thresholds identified in this Part. Disposal characterization and monitoring samples will be collected for analysis of PCBs to confirm the previous results as applicable.



Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
DOT	Hazardous Materials Procedures Program	49 CFR 107, et seq.	Establishes the authority for the program, which provides the requirements for the intrastate and interstate transportation of hazardous materials.	<p>§ 107, Subpart G, Requires registration of persons who offer or transport hazardous materials. This applies to a highway route- controlled quantities of <i>Class 7</i> (radioactive) material that is defined according to the specific activity of the radionuclides in the waste as listed in §§ 173.436. These regulations also apply to <i>Class 9</i> (hazardous listed) waste as defined according to radionuclide-specific activities in §§ 172.101.</p> <p>It is currently anticipated that waste shipped from this Site will not meet the thresholds of Class 7 or Class 9, and therefore will not be subject to the requirements for shipments of hazardous waste pursuant to this Part. If it is determined that the waste prepared for shipment meet the criteria of §§ 173.436 (Class 7) or § 172.101 (Class 9), then the requirements of § 107, Subpart G will be followed.</p>


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
DOT	Regulations governing the transportation of DOT-defined Hazardous Materials	49 CFR 171 to 174 and 49 CFR 177	List and classify those materials that DOT has designated as hazardous materials for purposes of transportation and prescribes the requirements for shipping papers, package marking, labeling,	Waste material could be classified as Class 7, Class 9, or unclassified/unregulated waste. If the waste material is determined to be Class 9 hazardous waste based on the reportable quantities in § 172.101, Table 2 to Appendix A, or by definition, then the requirements of these Parts would apply. Details of waste packaging, labeling, and handling are presented in the WMTDP (USACE, 2024k). Waste management activities will be overseen by the waste manager with documented training for radioactive waste packaging, transportation, and disposal in accordance with 49 CFR 172, Subpart H, Hazmat Employee Training. Shipping papers, laboratory data, and emergency contact information will be maintained with the shipments at all times.
DOT	Specifications for Packagings	49 CFR 178	Prescribes the manufacturing and testing specifications for packaging and containers used for the transportation of hazardous materials in commerce.	Material and waste storage containers brought/used on this project will conform to the manufacturing and testing specifications of this Part.
USACE	Air Monitoring Limits	USACE, 2024c, Radiation Protection Plan	Identifies ALARA airborne radioactivity limits and action levels for occupational and environmental exposures.	Perimeter, work area and personal breathing zone monitoring will be conducted during remedial activities. Filters will be collected, analyzed and evaluated to limits identified in the RPP (USACE, 2024c).
USACE	Air Monitoring Limits	USACE, 2024c, Contamination Control Plan	Establishes limits and action levels for radiological, beryllium, lead, respirable particles, and silica/crystalline.	Perimeter, work area and personal breathing zone monitoring will be conducted during remedial activities. Filters will be collected, analyzed and evaluated to limits identified in the CCP (USACE, 2024c).


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
USACE	Radiological Screening Levels for Clearance	USACE, 2024c, Contamination Control Plan	Establishes radiological limits for release of equipment and materials.	Surveys conducted on equipment and materials will be evaluated against limits established in the CCP (USACE, 2024c) prior to release from an exclusion zone.
USACE	Air and Surface Contamination Monitoring Limits	USACE, 2024c, Accident Prevention Plan/Site Safety and Health Plan	Establishes limits and action levels to assess airborne contamination and potential worker exposure.	Personnel, the site perimeter, and work areas will be monitored to airborne contamination and worker exposure. Data will be evaluated against limits identified in the APP/SSHP (USACE, 2024c). These data may be used to develop negative exposure assessments.
USACE	Parameters Used for Water Discharge Acceptance Criteria	USACE, 2024h, Uniform Federal Policy Quality Assurance Project Plan	Identifies chemical and radiological parameters and establishes limits for treated water to be discharged.	Potentially contaminated waster will be treated on site and sampled prior to discharge. Criteria established in UFP-QAPP/SAP (USACE, 2024h), prior to discharge or reuse on-site.
USACE	Beryllium and Lead Surface Area Contamination Limits	USACE, 2024h, Uniform Federal Policy Quality Assurance Project Plan	Identifies limits and action levels for evaluating beryllium and lead contamination on surfaces.	Routine and release surveys will be performed on equipment and facilities and be evaluated against the limits in UFP-QAPP/SAP (USACE, 2024h) to determine if additional decontamination or cleaning is required.
USACE	Waste Acceptance Criteria	Uniform Federal Policy Quality Assurance Project Plan	Identifies radionuclide, beryllium, lead and Toxicity Characteristic Leaching Procedure limits.	Soil samples will be collected from excavated soils and be evaluated against criteria established in UFP-QAPP/SAP (USACE, 2024h), prior to shipment to the disposal facility.
USACE	Backfill Material Criteria	Uniform Federal Policy Quality Assurance Project Plan	Identifies geotechnical and FUSRAP contaminant requirements and sampling frequency for backfill materials.	Off-site backfill sources will be sampled and evaluated based on criteria established in UFP-QAPP/SAP (USACE, 2024h).


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
STATE:				
ODNR	Erosion and Sediment Control, Division of Soil and Water Conservation	OAC 1501:15-1	Establishes State standards for management and conservation practices that control wind or water erosion of the soil and minimize the degradation of water resources by soil sediment in conjunction with land grading, excavating, filling, or other soil-disturbing activities. The standards apply to land used or being developed for commercial, industrial, residential, or other non-farm purposes. Erosion and Sediment Control requirements for the City of Cleveland are found in Cleveland Codified Ordinance Chapter 3116.	OAC 1501:15-1-3, <i>Erosion and Sediment Control Plan</i> , dictates that persons responsible for site development prepare an erosion and sediment control plan. This plan will be developed as the Storm Water Pollution Prevention Plan (SWPPP) (USACE, 2024e) and additional detail will be provided in the project WMP (USACE, 2024j). As indicated above, State regulatory approval for those Plans is not required pursuant to Section 121(e) of CERCLA; however, the substantive technical and management requirements of OAC 1501:15-1 will be met.
ODH	License or Registration for Radiation Handlers	OAC 3701:1-38	Establishes standards for protection against ionizing radiation.	Provides general guidelines EFS will follow for the protection of workers and the public against the effect of ionizing radiation. Actions defined by EFS are discussed in the APP/SSHP (USACE, 2024c) and RPP (USACE, 2024c), in terms of employees and subcontractors involved with on-site operations who might be exposed to radiological materials, and the waste handling processes defined within the WMTDP (USACE, 2024k).


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
ODH	Radiation Control – Notices, Instructions, and Reports to Workers	OAC 3701:1-38-10	Establishes requirements for notices, instructions, and reports to be provided by licensed employers to workers employed in radiological working conditions.	As discussed in the APP/SSHP (USACE, 2024c) and RPP (USACE, 2024c), all employees and subcontractors involved with on-site operations who might be exposed to radiological materials will have been trained in accordance with EFS's Radiation Protection Program and will be provided with proper posting and reporting relative to exposures.
ODH	Radiation Control – Decommissioning	OAC 3701:1-38-22	Contains limitations for AEC-related radionuclides that are the same as those found in 10 CFR Part 20 Subpart E. The requirement has been promulgated by the State of Ohio, as an agreement state, to ensure consistent standards for determining the extent to which lands in Ohio must be remediated before decommissioning of a site can be considered complete, and the state license can be terminated. This OAC 3701:1-38-22 establishes a standard for unrestricted release of property of 25 mrem/yr and ALARA as the total effective dose equivalent to an average member of a critical group.	The FSSP (USACE, 2024i) defines the process for ascertaining cleanup consistent with these standards.


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
ODH	Radiation Protection Standards for TENORM	OAC 3701:1-43	Contains limitations for AEC-related radionuclides that are the same as those found in 10 CFR Part 20 Subpart E. The requirement has been promulgated by the State of Ohio, as an agreement state, to ensure consistent standards for determining the extent to which lands in Ohio must be remediated before decommissioning of a site can be considered complete, and the state license can be terminated. This OAC 3701:1-38-22 establishes a standard for unrestricted release of property of 25 mrem/yr and ALARA as the total effective dose equivalent to an average member of a critical group.	The FSSP (USACE, 2024i) defines the process for ascertaining cleanup consistent with these standards.
ODH	Packaging and Transportation of Radioactive Material	OAC 3701:1-50	Establishes requirements for packaging, preparation for shipment, and transportation of radioactive material.	Details of waste packaging, labeling, and handling are presented in the WMTDP (USACE, 2024k).
ODH	Radiation Control Program	ORC 3748	Authorizes the ODH to be the radiation control agency for the State of Ohio, including the development and implementation of programs for the control of sources of radiation. One aspect of this program relates to the disposal of radioactive waste, including waste classified as TENORM.	Waste materials are classified on-site as either “FUSRAP” or Non-“FUSRAP” wastes and dispositioned accordingly. Materials meeting the definition of FUSRAP (including TENORM) waste will not be disposed of at an Ohio solid waste facility. This classification process is defined within the WMTDP (USACE, 2024k).


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
Ohio EPA	Water Quality Standards	OAC 3745-1	Sets provisions for the control of discharges through best available, demonstrated control technology relative to specific regulated pollutants.	Activities at the site are being conducted so as to ensure the implementation of best management practices that reduce the pollutants in stormwater discharges during construction and pollutants associated with post-construction activities. The WMP (USACE, 2024j) and SWPPP (USACE, 2024e) provide details relative to these activities.
Ohio EPA	Pretreatment Rules	OAC 3745-3	Establishes a statewide wastewater pretreatment program including enforceable state requirements and standards regulating the introduction of pollutants into POTWs by industrial users.	Northeast Ohio Regional Sewer District POTW operates under a State-approved POTW pretreatment program pursuant to OAC 3745-3-3. Wastewater from remediation operations is not covered by the Federal categorical pretreatment standards and, by reference, also the same under these State regulations.
Ohio EPA	Water Well Standards	OAC 3745-09	Specifies standards for design and closure of wells in compliance with Division of Drinking and Ground Waters guidance. Specifies siting requirements and minimum construction requirements for new ground water wells.	Monitoring wells will be designed, closed, sited, constructed, and grouted in accordance with the requirements of OAC-3745-9.


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
Ohio EPA	Restriction of Emission of Fugitive Dust	OAC 3745-17-08	Establishes State requirements which apply to any fugitive dust source which is located within the areas identified in “Appendix A” of this rule (Appendix A includes the entire Cuyahoga County). Requirements include taking or installing reasonably available control measures to prevent fugitive dust from becoming airborne.	Water will be used for dust suppression during the project [see the SOP (USACE, 2024a) and WMP (USACE, 2024j)]. Use of water for dust suppression is considered “reasonably available control measures” pursuant to OAC 3745-17- 08(B) (1). As indicated above, a State regulatory permit pursuant to OAC 3745-17- 08 is not required under Section 121(e) of CERCLA; however, the substantive technical and management requirements of OAC 3745-17-08 will be met, which includes the dust suppression activities and dust monitoring as described in the SOP (USACE, 2024a), WMP (USACE, 2024j), and RPP (USACE, 2024c).
Ohio EPA	Ambient Air Quality Standards	OAC 3745-25-02	Establishes numerical values for air pollutants that must be met at air emission sources for the respective pollutant.	Dust suppression activities (e.g., water mist application in excavations, waste handling areas, and haul roads) will be used to minimize dust at the site. Air monitoring to verify effectiveness will be performed during remediation as described in the APP/SSHP (USACE, 2024c), the CCP (USACE, 2024c), and the UFP-QAPP/SAP (USACE, 2024h).
Ohio EPA	Permit Program Regulating Discharge of Non-Domestic Wastewater into a POTW	OAC 3745-36	Establishes, as a part of the Ohio pretreatment program, a permit program regulating the discharge of non-domestic wastewater into a POTW to ensure compliance with pretreatment standards under OAC 3745-3, <i>Pretreatment Rules</i> .	The requirement to obtain an individual indirect discharge permit from the Ohio EPA in accordance with this Rule does not apply to any industrial user that is under the regulatory jurisdiction of a POTW that has an approved pretreatment program in accordance with the provisions of OAC 3745-3. See discussion below regarding permitting process with local POTW


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
Ohio EPA	Hazardous Waste Management System - General	OAC 3745-50 <i>et seq.</i>	Establishes the identification, classification, and management procedures and guidelines for hazardous waste. Analogous to the provisions of 40 CFR 260 through 265.	As indicated above, it is not anticipated that remediation waste from the Site will be “hazardous waste,” as defined or classified pursuant to 40 CFR 260 and OAC 3745-50. Monitoring will be performed during remediation, supplemented by off-site laboratory analysis as needed, to further evaluate the potential applicability of the hazardous waste regulations in the event suspect waste is encountered during excavation in accordance with the project WMTDP (USACE, 2024k) and UFP-QAPP/SAP (USACE, 2024h).
Ohio EPA	Voluntary Action Program, Generic Numerical Standards and Property-Specific Risk Assessment Procedures	OAC 3745-300-08 and 09	Establishes numerical standards for hazardous substances and petroleum used to demonstrate compliance with applicable standards, provided the exposure scenario for the property comports with land use and activity patterns used to derive the generic numerical standard.	Provides standards for chemical contaminants in excavated soils that establish the use of such soils as reuse of material, assuming that the soils meet other specified requirements. Application of these standards are described in the BRP (USACE, 2024a).
Ohio EPA	Rules for inspection and licensing of solid waste facilities	ORC 3734.02(P)(2)	The owner or operator of a solid waste facility shall not except for transfer or disposal technologically enhanced, naturally occurring radioactive material (TENORM) if that material contains or is contaminated with radium-226, radium-228, or any combination of radium-226 and radium-228 at concentrations equal to or greater than 5 pCi per gram above natural background.	Waste materials are classified on-site as either “FUSRAP” or “Non- FUSRAP” wastes and dispositioned accordingly. Materials meeting the definition of FUSRAP waste will not be disposed of at an Ohio solid waste facility. This classification process is defined within the WMTDP (USACE, 2024k).


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
Ohio EPA	Water pollution and sludge management violations prohibited	ORC 6111.04	Sets provisions for the control of discharges through best available, demonstrated control technology relative to specific, regulated pollutants.	Activities at the site are being conducted in a manner to ensure the implementation of best management practices that reduce the pollutants in stormwater discharges during construction and pollutants associated with post- construction activities. The WMP (USACE, 2024j) and the SWPPP (USACE, 2024e), provide details relative to these activities.
LOCAL:				
Northeast Ohio Regional Sewer District	Wastewater Collection and Treatment	Title I, Chapter 4	This Chapter sets forth uniform requirements for dischargers into the sewer wastewater collection and treatment systems. The objectives of these regulations are to prevent the introduction of pollutants into the wastewater system which have the potential to interfere with the normal operation of their treatment system, do not receive adequate treatment in the wastewater treatment facilities, and which will pass through the system into receiving waters or the atmosphere or otherwise be incompatible with their treatment system. Establishes the acceptance criteria for the transportation and disposal of Site wastewater at the POTW.	Wastewater generated at the Site will be treated and will be conveyed to the NEORSD POTW facility or managed in accordance with another approved procedure. If wastewater will be discharged to the POTW, then a permit to discharge treated wastewater associated with this remediation project will be obtained for discharge to the POTW. Specific permit, monitoring, and reporting requirements will be established in coordination with the NEORSD. If a permit to discharge to the NEORSD POTW cannot be obtained or is cost prohibitive, an individual NPDES permit to discharge wastewater from the site may be sought from the Ohio EPA or wastewater may be discharged to a commercial treatment facility. Wastewater will be managed in accordance with WMP (USACE, 2024j).
City of Cleveland	Prohibition of Illicit Wastewater or Stormwater Discharges	Charter Chapter 541.11	Establishes types of illicit wastewater that are prohibited from discharge.	Wastewater will be managed in accordance with WMP (USACE, 2024j) to be in compliance with the prohibitions.


Table 3-1: Potential Regulatory Requirements for the HCCS Remediation (continued)

Agency	Regulation, Standard, Requirement, Criteria	Citation or Reference	Description	Application to Site
City of Cleveland	Commercial and Heavy Vehicles	Charter Chapter 439	Includes Section 11, Loads Dropping or Leaking; Removal Required; Tracking Mud, which requires that no person to operate a vehicle so as to track or drop mud or similar material on any street, highway, or other public place.	Personal vehicles will be kept in designated paved parking areas, and will be kept out of unpaved worked areas as much as possible. Thus, personal vehicles will not leave the site with loose dirt, mud, etc. Heavy equipment will be cleaned of loose dirt, mud, and dust for each demobilization from the Site.
City of Cleveland	Disorderly Conduct and Activity - Unnecessary Noise	Charter Chapter 605.10	Prohibits unnecessary noise from construction between 7:00 am and 7:00 pm within five hundred (500) feet of places of residence and one hundred fifty (150) feet of any portion of the grounds and premises on which is located a hospital or other institution reserved for the sick, aged or infirm, or within one hundred fifty (150) feet of any school, courthouse, church or building in which religious services are held, during school hours, hours of holding court or hours of public worship, respectively.	Construction operations will occur from 7:00 am through 5:30 pm, and thus will not create noise nuisances during the prohibited time. The distance restrictions are also not applicable because the project is not within the proximity to the listed facilities.
City of Cleveland	Flammable Liquids	Charter Chapter 383	Establishes the storage and handling requirements of Class I and Class II liquids.	Pursuant to OAC 1301:7-7-34 and this Chapter, flammable and combustible materials will be stored in appropriate Class I and Class II containers in designated areas. Warning labels, marking, and posting shall be used to identify these containers, and secondary containment (spill pans) will be used as appropriate for the respective containers.



Table 3-2: USACE Guidance Documents for Hazardous, Toxic, and Radioactive Waste (HTRW) Sites

USACE Document Number	Document Title
ENGINEER MANUALS:	
EM 200-1-6	<i>Chemical Quality Assurance for Hazardous, Toxic, and Radioactive (HTRW) Projects</i>
EM 385-1-1	<i>Safety and Occupational Health (SOH) Requirements</i>
EM 385-1-80	<i>Radiation Protection Manual</i>
EM 1110-1-1002	<i>Survey Markers and Monuments</i>
EM 1110-1-1003	<i>Navstar Global Positioning System Surveying</i>
EM 1110-1-1005	<i>Control and Topographic Surveying</i>
EM 1110-1-1802	<i>Geophysical Exploration for Engineering and Environmental Investigations</i>
EM 1110-1-2909	<i>Geospatial Data and Systems</i>
EM 1110-1-1804	<i>Geotechnical Investigations</i>
EM 1110-1-4000	<i>Monitoring Well Design, Installation, and Documentation at Hazardous, Toxic, and Radioactive Waste Sites</i>
ENGINEER PAMPHLETS:	
EP 200-1-2	<i>Process and Procedures for Shipping Hazardous Wastes and Other Hazardous Materials</i>
EP 310-1-6a and 6b	<i>Sign Standards Manual</i>
EP 415-1-266	<i>Construction - Resident Engineer Management Guide (REMG) for Hazardous, Toxic, and Radioactive Waste (HTRW) Projects</i>
EP 200-1-23	<i>Spill Reporting Procedures for USACE Hazardous, Toxic, and Radioactive Waste (HTRW) Projects</i>
ENGINEER REGULATIONS:	
ER 200-1-7	<i>Chemical Data Quality Management for Environmental Restoration Activities</i>
ER 385-1-80	<i>Ionizing Radiation Protection</i>
ER 385-1-92	<i>Safety and Occupational Health Requirements for Environmental Cleanup Projects Waste (HTRW) Activities</i>
ER 385-1-99	<i>USACE Accident Investigation and Reporting</i>
UNIFIED FACILITIES GUIDE SPECIFICATIONS (UFGS):	
01 01 01	<i>Real Estate</i>
01 32 01.00 10	<i>Project Schedule</i>
01 33 00	<i>Submittal Procedures</i>



Table 3-2: USACE Guidance Documents for Hazardous, Toxic, and Radioactive Waste (HTRW) Sites (continued)

USACE Document Number	Document Title
01 35 13.43 10	<i>Special Project Procedures</i>
01 35 26	<i>Governmental Safety Requirements</i>
01 35 29.13	<i>Health Safety & Emergency Response Procedures for Contaminated Sites</i>
01 35 45	<i>Chemical Data Quality Control</i>
10 40 00.00 10	<i>Quality Control</i>
10 40 00.15 10	<i>Resident Management System Contractor Mode (RMS CM)</i>
01 50 00	<i>Temporary Construction Facilities and Controls</i>
01 57 23	<i>Temporary Storm Water Pollution Control</i>
01 58 00	<i>Project Identification</i>
02 32 00	<i>Subsurface Drilling, Sampling, and Testing</i>
02 41 00	<i>Deconstruction</i>
02 61 13	<i>Excavation and Handling of Contaminated Material</i>
02 81 00	<i>Transportation and Disposal of Hazardous Materials</i>
31 11 00	<i>Clearing and Grubbing</i>
32 92 19	<i>Seeding</i>
35 51 39	<i>Monitoring Wells</i>
<i>CORPS OF ENGINEERS BUFFALO DISTRICT (CELRB) STANDARD OPERATING PROCEDURES (from Section C of HCCS FUSRAP Site Performance Work Statement):</i>	
SOP #1	<i>Cost and Schedule Reporting</i>
SOP #2	<i>Negative Exposure Assessment Report to Downgrade PPE for Specific Activity</i>
SOP #3	<i>Exposure Assessment Report to Establish Control Zones</i>