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SUBJECT MATTER AREA: Environmental Compliance	PREPARER: Sherry Gibson	Page 1 of 189
PROCESS/PROGRAM DESCRIPTION	CONCURRENCE/DATE: A. J. Reed 7/30/18 [Approval Signature on File]	
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This document is approved for public release per review by:

Teresa D. Fancher 7/11/18  
UCOR Classification Date  
Information Control Office

REVISION LOG			
Revision	Effective Date	Description of Changes	Pages Affected
5	8/23/18	Intent change. Updated Appendix N from Reserved to include Guidance for Decontamination of Equipment Contaminated with PCB Oil, PCB Remediation Waste, or PCB Bulk Product Waste to address CAMS issue IF-2018-0297; included reference to Appendix N in Section 17 of Appendix A; added Section 14.6, Reciprocating Internal Combustion Engines, included in Appendix A, and added new Appendix C-3; various updates in Section 15.1; updated Section 15.3, Appendix A Section 15.3, references, and Appendix Q to include UCOR-5079; updated Section 16.10 and Appendix A roles and UCOR responsibility; removed reference to PROC-ES-2702 in Sections 16.12, 17, References and Appendix A; updated Appendix A Sections 16.12 and 17 to include Form 2390 and 2239, respectively; included self-assessment in Section 21, Appendix A, and Appendix O; added reference to PCB M <sub>s</sub> mark throughout and in Appendix E-3; updated Appendix H, Section C to clarify requirements for used oil characterization; added Section I to Appendix Q to include SPCC requirements for oil-powered generators; updated references; editorial updates.	All
4	8/17/17	Intent change. Removed references to the I Care/We Care Program; included Subcontract Technical Representative position; added requirement to Section 3.1 for EC&P Lead notification for environmental releases; added requirement in Section 3.2.6 that subcontractors submit information, as requested, for inclusion in ASER; removed website links in Appendix C and O; added note throughout that liquid or debris in secondary containment should be removed in a timely manner; clarified generator waste container labeling requirements in Appendix E-1 for waste pending analysis; added requirement in Appendix G for waste containers to have a label with the waste contents identified; editorial changes.	All
3	8/15/16	Non-intent change. Updated references and regulatory citations; editorial updates.	21, 51, 71, Appendix A, 175, 185, 209

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2	8/5/16	Intent change. Updated references and regulatory citations; added section for the Solid Waste Disposal Act; removed requirement for EC&P registration of accumulation areas; added appendix for management of alkaline batteries; updated Section 11.2 to add information on wildlife and the Migratory Bird Treaty Act; updated various Appendices.	All
1	3/1/13	Incorporated applicable information from Waste Management Program procedures; updated the TDEC regulatory citations for hazardous waste, solid waste, and underground storage tanks to reflect new numbering system; updated references to BJC documents; incorporated information regarding TN Mercury Product Disposal Control Act.	All
0	1/10/12	Initial issue of this document number. Replaces <i>Environmental Compliance and Protection Program Description, Oak Ridge, Tennessee</i> (BJC/OR-1747, Rev. 4). Periodic review of this document by Technical Experts and the Subject Matter Expert to address regulatory changes during the past year; incorporation of DOE Order 436.1, <i>Departmental Sustainability</i> requirements, added Appendix T-Environmental Signage/Posting Requirements and Best Practices.	All

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## ACRONYMS

90-DAA	90-day accumulation area
ALARA	As low as reasonably achievable
APC	Air Pollution Control
APM	Area Project Manager
AOC	Area of Concern
ARAP	Aquatic Resource Alteration Permit
ARAR	Applicable or relevant and appropriate requirement
ASER	Annual Site Environmental Report
AST	Aboveground storage tank
BMP	Best management practice
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CNS	Consolidated Nuclear Security, LLC
CRMP	Cultural Resources Management Plan
CWA	Clean Water Act
D&D	Decontamination and demolition
DOE	U.S. Department of Energy
EC&P	Environmental Compliance and Protection
EHS	Extremely hazardous substance
EMP	Environmental Monitoring Plan
EMS	Environmental Management System
EMWMF	Environmental Management Waste Management Facility
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
ESH	Environment, Safety, and Health
ESH&QA	Environment, Safety, Health and Quality Assurance
ETTP	East Tennessee Technology Park
FM	Facility Manager
GHG	Greenhouse Gas
HAP	Hazardous air pollutants
HSWA	Hazardous and Solid Waste Amendments
ISMS	Integrated Safety Management System
JHA	Job Hazard Analysis
LOI	Line of Inquiry
LSD	Low sulfur content diesel
LSS	Laboratory Shift Superintendent
mrem	Millirem
NADR	Notice of Asbestos Demolition or Renovation
NEPA	National Environmental Policy Act of 1969
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
ODS	Ozone-depleting substances
ORNL	Oak Ridge National Laboratory

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ORO	Oak Ridge Office
ORR	Oak Ridge Reservation
OSHA	Occupational Safety and Health Administration
P2	Pollution prevention
PCB	Polychlorinated biphenyls
PD	Program Description
PED	Potential effective dose
PM	Project Manager
ppm	Parts per million
PSS	Park Shift Superintendent (ETTP)
PSS	Plant Shift Superintendent (Y-12 NSC)
RCRA	Resource Conservation and Recovery Act of 1976
RICE	Reciprocating Internal Combustion Engines
ROD	Record of Decision
SAA	Satellite Accumulation Area
SCA	Subcontract Administrator
SCC	Subcontract Coordinator
SHPO	State Historical Preservation Officer
SPCC	Spill Prevention, Control, and Countermeasure
STARRT	Safety Task Analysis Risk Reduction Talk
STR	Subcontract Technical Representative
SWDA	Solid Waste Disposal Act of 1965
SWMU	Solid Waste Management Unit
SWPPP	Storm Water Pollution Prevention Plan
TCA	Tennessee Code Annotated
TDEC	Tennessee Department of Environment and Conservation
THWRA	Tennessee Hazardous Waste Reduction Act
TOA	Tennessee Oversight Agreement
TR	Tennessee Rule
TRM	Training Matrix Requirement
TSCA	Toxic Substances Control Act of 1976
tpy	tons per year
UCOR	URS   CH2M Oak Ridge LLC
ULSD	Ultra-low sulfur content diesel
UST	Underground storage tank
UT-Battelle	University of Tennessee – Battelle
WMA	Waste Management Area
WSHP	Worker Safety and Health Program
Y-12 NSC	Y-12 National Security Complex

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# 1. INTRODUCTION

## 1.1 ENVIRONMENTAL COMPLIANCE AND PROTECTION PROGRAM DESCRIPTION OBJECTIVE

The objective of the Environmental Compliance and Protection (EC&P) Program Description (PD) is to establish minimum environmental compliance requirements and natural resources protection goals for the URS | CH2M Oak Ridge LLC (UCOR) Oak Ridge East Tennessee Technology Park (ETTP) Contract, Contract Number DE-SC-0004645. This PD establishes the work practices necessary to ensure protection of the environment during the performance of ETTP Contract work activities on the U.S. Department of Energy’s (DOE) Oak Ridge Reservation (ORR) in Oak Ridge, Tennessee, by UCOR employees and subcontractor personnel. Both UCOR and subcontractor personnel are required to implement this PD.

A majority of the decontamination and demolition (D&D) activities and media (e.g., soil and groundwater) remediation response actions at DOE sites on the ORR are conducted under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). CERCLA activities are governed by individual CERCLA decision documents (e.g., Record of Decision [ROD] or Action Memorandum) and according to requirements stated in the *Federal Facility Agreement for the Oak Ridge Reservation* (DOE/OR-1014). Applicable or relevant and appropriate requirements (ARAR) for the selected remedy are the substantive environmental protection requirements for environmental remediation responses (e.g., removal actions and remedial actions) conducted under CERCLA. *Applicable requirements* means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, locations or other circumstance found at a CERCLA site. *Relevant and appropriate requirements* means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not “applicable” to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are identified in a timely manner and are more stringent than federal requirements may be relevant and appropriate. Other requirements that may apply to CERCLA actions but would not be identified as ARARs include Occupational Safety and Health Administration (OSHA), worker protection requirements, DOE Orders, UCOR business and procedural requirements, etc.

An example Applicability and Responsibility Matrix is provided as Appendix A to this PD. The fillable MS Word file matrix is maintained on the UCOR Proforma Documents webpage and is a tool that can be used by the project EC&P Lead and project management for UCOR project(s) to: (1) identify sections of this PD that are and are not applicable to the defined scope of work (by marking the “yes/no” applicability columns included in the matrix, as appropriate), and (2) compare specific listed requirements that apply to UCOR in its role as DOE’s ETTP Contract management and oversight contractor versus those requirements that apply solely to UCOR subcontractor personnel. For all UCOR self-performed project work, UCOR shall meet the applicability requirements listed under the matrix column titled, “Subcontractor Responsibility.” If the project(s) determines that all sections of this PD apply to the defined scope of work for self-performed activities, the use of the “yes/no” applicability columns on the

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far left side of the matrix is not required. For subcontracted work, the “yes/no” columns must be filled in and the completed matrix then becomes an attachment to Exhibit G of the subcontract to identify only those requirements of this PD that apply to the subcontractor scope of work. Each UCOR project team that implements and administers a new or amended subcontract shall use the fillable MS Word file matrix to define which components of this PD are applicable to the new subcontract, and shall include a completed matrix in the subcontract request for proposal documents, the resulting subcontract or change notice, as an attachment to Exhibit G of the subcontract.

This document is a companion document to PPD-EH-1745, *Worker Safety and Health Program (WSHP)*, and PPD-RP-4000, *Radiation Protection Program Description for URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee*, which together address all the major discipline areas of safety. The definition of *safety* embodies the protection of the worker, public health, and environment. These PDs will be implemented in conjunction with each other to achieve zero accidents, including zero unplanned releases to the environment, and to implement the Integrated Safety Management System (ISMS) and Environmental Management System (EMS).

The levels of protection specified in this PD represent the minimum environmental compliance and resource protection requirements to be observed by all personnel engaged in all project activities. Should work scope, site conditions, or changes in work not previously considered or addressed in this PD dictate additional requirements, these changes will be addressed in project-specific documentation to ensure environmental protection levels and stated controls are appropriately identified. Project-specific documentation must be approved by the project EC&P Lead and may include but are not limited to work packages, project-specific procedures, work instructions, ARARs crosswalk, or an addendum to this PD. This PD does not alleviate any responsibilities to comply with applicable federal, state, or local environmental laws, regulations, or ordinances.

## 1.2 POLICY STATEMENT

It is UCOR policy to conduct all work activities in a manner that protects the environment and complies with applicable laws and regulations. Consideration shall be given to the elements of EC&P including natural, historic, and cultural resources when planning, conducting, and closing out all work activities. This policy aligns with UCOR policy POL-UCOR-007, *Environmental Management and Protection*. UCOR believes that every accident and every injury is preventable, and the company is dedicated to supporting the UCOR philosophy of “Zero unpermitted discharges” and “Zero notices of violations”.

## 1.3 EMPLOYEE EMPOWERMENT

Compliance with environmental requirements and protection of natural resources are the responsibilities of all UCOR and subcontractor employees. All employees have the right and responsibility to report compliance issues, conditions, areas of concern, when natural resources are threatened or impacted, and to stop work without fear of reprisal. No employee shall be asked to complete a task the employee feels is unsafe or may endanger the environment. All UCOR and subcontractor employees have the right to use the UCOR Employee Concerns program according to PROC-CN-2008, *Employee Concerns Program*; Form-190, Employee Concerns Reporting Form; or call the UCOR Employee Concerns Hotline (888) 584-8329 or (865) 241-0931; the DOE Employee Concerns Program; or call the DOE Employee Concerns Hotline at (800) 676-3267.

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#### **1.4 INTEGRATED SAFETY MANAGEMENT SYSTEM / ENVIRONMENTAL MANAGEMENT SYSTEM**

UCOR is committed to ISMS and uses ISMS core functions and guiding principles to integrate EMS elements into work activities, as described in DOE Order 436.1, *Departmental Sustainability, Attachment 1, Contractor Requirements Document*.

UCOR's Environment, Safety, Health and Quality Assurance (ESH&QA) Organization provides procedures and processes for integrating EMS elements within the ISMS by identifying environmental controls and compliance impacts and concerns prior to performing a scope of work, during work activities, and after the work is completed. EMS is supported through all phases of work planning and execution by communication between UCOR ESH&QA staff, self-performed project teams, and subcontractors through the project's EC&P staff.

An integral part of ISMS is the integration of EC&P considerations into all work practices and at all levels of the job task (refer to Appendix B). To accomplish this, an EC&P Lead is assigned to each major project organization. For subcontracted work, the EC&P Lead assists the UCOR subcontract coordinator (SCC) or subcontract technical representative (STR) in mentoring the subcontractors on issues related to environmental compliance and natural resources protection. Subcontractors function within the UCOR ISMS structure while performing work in accordance with specific scope, requirements and terms. UCOR's EMS, as required by DOE Order 436.1, is integrated into PPD-EH-1400, *Integrated Safety Management System Program Description*. The EC&P Lead, or assigned designee, will help define and evaluate work activities to support the project, and subproject teams in identifying and analyzing environmental aspects and in implementing controls that comply with applicable laws, regulations, and DOE Orders. As work activities on projects are performed and completed, the EC&P Lead or assigned designee provides feedback and lessons learned to the project regarding EC&P issues.

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## **2. ROLES AND RESPONSIBILITIES**

### **2.1 THE MANAGEMENT TEAM**

The UCOR Organization defines roles and responsibilities to ensure effectiveness of communication during work planning and execution. The UCOR President and Project Manager is responsible for managing the company and guiding the management team toward the safe performance of all work. As the senior manager for UCOR, he/she has ultimate responsibility for safe and environmentally responsible accomplishment of work and establishes company standards and expectations for all work under this contract. The UCOR President and Project Manager issues the Environmental Management and Protection Policy that establishes the scope of UCOR's EMS. In addition, he/she issues UCOR's Environmental Objectives and Targets for each year. UCOR's Area Project Managers (APM), functional managers, and others directly report to the president. All parties work as a team to achieve project integration and safe performance of work. The management team ensures compliance with requirements, allocates resources, integrates project execution and support functions, and focuses on project completion.

### **2.2 AREA PROJECT MANAGERS**

An APM is responsible and accountable for the safe and environmentally responsible execution of the work scope. APMs are senior line managers who are fully empowered to control project resources and have cradle-to-grave responsibility for project planning and execution. They have direct and immediate responsibility for the safe performance of project activities under their direction, including field implementation of ISMS/EMS. The UCOR President and Project Manager holds each APM personally accountable for the safe performance of work under his or her purview and for the execution of all projects in a manner that conserves resources, minimizes waste generation, promotes recycling, and incorporates the use of biobased and environmentally preferable products. APMs assign project managers (PM) to lead project teams in the successful execution of an assigned scope of work. PMs also direct the activities of subcontractors through SCCs or STRs to implement safety programs and requirements. The PMs' success in implementing ISMS/EMS depends on the effective use of the company's functional resources.

### **2.3 FUNCTIONAL MANAGEMENT**

The UCOR functional managers provide procedures and programs within their areas of responsibility and provide support to the project teams by deploying their professional resources to the projects. Functional managers are responsible for designated subject matter areas and are supported in each area by technical experts. Functional managers are responsible for the development, oversight, and maintenance of program-implementing mechanisms to ensure complete and accurate flow down of contract standards.

UCOR functional managers provide support at the programmatic level and perform programmatic oversight functions. The deployed project support resources integrate the actions of the project teams from their discipline perspective, ensuring that work is conducted in accordance with established procedures and guidelines. They also share lessons learned among the teams to improve safety and work/cost efficiencies.

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## 2.4 PROJECT MANAGEMENT

The project teams include personnel who are deployed to the project from the functional organizations. Although the makeup of project teams varies depending on the work scope, the basic project team consists of a PM, Subcontract Administrators (SCA), SCC(s) or STR(s), facility manager (FM), cost/schedule representative, quality representative, nuclear facility safety manager, EC&P Lead or representative, Waste Generator Services Project Waste Coordinator, transportation specialist, Project Environment, Safety, and Health (ESH) Operations Manager, and Project Safety Representative. Additional functional resources and personnel with task or discipline-specific experience are included on the team as needed. Project teams are responsible for defining the work scope; prioritizing tasks; allocating resources; and scheduling, planning, and executing work. They develop project-specific execution plans, procedures, and subcontracting requirements to provide direction and oversight for project activities and ensure compliance with the specified requirements. Project teams also provide the mechanism for integrating ESH considerations and controls into project activities. They ensure that safety and environmental hazards associated with the project are appropriately identified, analyzed, and controlled, and that work does not commence until readiness is confirmed. Environmental responsibilities extend beyond ensuring compliance with regulatory requirements. These responsibilities include identifying opportunities to incorporate environmental sustainability principles; purchase environmentally preferable products; recycle; and implement pollution prevention and waste minimization practices on all projects. Changes from the initial plan are reviewed by the entire project team prior to implementation to ensure consistency and compliance.

## 2.5 FACILITY MANAGERS

Each UCOR facility has an assigned FM who has been formally qualified and authorized by UCOR management to oversee all activities performed in his/her assigned facility(ies), and to ensure that such activities are conducted in a safe manner within the safety basis of the facility. The FMs are provided to the APMs from the Field Services functional organization and are responsible to the APM for authorizing and overseeing the safe execution of all work activities in their facility(ies) in accordance with PROC-FO-515, *Facility Management*.

## 2.6 ENVIRONMENT, SAFETY AND HEALTH PROGRAMS

The UCOR ESH Programs provide direct support to program and project teams throughout the company to facilitate integration of ESH activities. The ESH organization includes groups responsible for radiation protection, industrial hygiene, occupational safety, EC&P, and fire protection.

## 2.7 THE EMPOWERED WORKER

Each employee, as an empowered worker, holds the key to the success of ISMS/EMS: “*The effective application of safe work processes.*” Whether employed by UCOR or a subcontractor, each employee’s abilities and commitment to execute activities in a safe and environmentally sound manner form the basis for the Company’s ESH culture. UCOR is committed to all employees being trained and qualified commensurate with their duties and responsibilities. UCOR employees and subcontractors are personally involved in the ISMS/EMS process through the following:

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- being adequately trained and qualified
- identifying workplace hazards (including environmental and public health hazards)
- participating in work control document and procedure development
- following procedures
- providing feedback, including lessons learned
- participating in incident investigations and self-assessments

All workers are empowered to stop work when they perceive that an unsafe condition exists that threatens them, their coworkers, or the environment.

## **2.8 PROJECT ESH OPERATIONS MANAGER**

The Project ESH Operations Manager is responsible for overseeing all ESH activities, to include EC&P, for each respective project. The Project ESH Operations Manager will provide project oversight of EC&P Leads and will also interact with the APM on a regular basis.

## **2.9 SUBCONTRACT COORDINATOR / SUBCONTRACT TECHNICAL REPRESENTATIVE**

The SCC (non-construction projects) or STR (construction projects) is an employee nominated by an APM, or designee, and accepted by the Subcontract Coordination Manager to be responsible for the management of the fieldwork within the subcontract work scope. In coordination with the EC&P Lead, the SCC or STR works with the subcontractor and the UCOR Project Safety Representative to promote zero accident performance and strengthen the subcontractor's ESH program, including EC&P considerations.

## **2.10 SUBCONTRACT ADMINISTRATOR**

The SCA is an employee assigned by Supply Chain Management who is responsible for establishing the commercial business terms of a subcontract and ensuring the necessary flow down of technical requirements, including safety and health, into subcontracts. The SCA, working with the assigned SCC or STR, is also responsible for the administration of the subcontract. The SCA is designated within the subcontract, along with the SCC or STR, as a representative of UCOR authorized to direct work with UCOR subcontractor personnel.

## **2.11 PROJECT SAFETY REPRESENTATIVE**

The Project Safety Representative is an employee assigned to a project by the Project ESH Operations Manager to support the implementation of UCOR ESH policies, plans, and procedures. The Project Safety Representative is required to have fulfilled the training and medical monitoring requirements for all areas within the facility for which he/she is responsible for the coordination of all task activities with respect to ESH with the project superintendent, FM, subcontractors, and others. The Project Safety Representative provides day-to-day oversight of all project activities in coordination with the project EC&P Lead.

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## 2.12 ENVIRONMENTAL COMPLIANCE AND PROTECTION LEAD

The EC&P Lead is an employee responsible for providing environmental compliance and protection support and oversight to the UCOR project management team, SCA, and SCC or STR for all project activities.

Responsibilities of the EC&P Lead include, but are not limited to, the following:

- ensuring that EC&P requirements applicable to the project are identified in UCOR project work control documents (refer to Appendix A)
- ensuring that subcontract requirements (exhibits) include implementation of all UCOR EC&P elements that are applicable to the subcontract scope of work
- assisting the UCOR project in developing strategies for regulatory compliance
- serving as an interface with external organizations (DOE, U.S. Environmental Protection Agency [EPA], Tennessee Department of Environment and Conservation [TDEC], Tennessee Oversight Agreement [TOA] representatives) for environmental compliance and resource protection issues, with the exception of CERCLA projects, which use personnel (Technical Integration) from the Regulatory Support Organization in this role
- consolidating information from site-wide activities as required for inclusion in site-wide environmental reports (e.g., Resource Conservation and Recovery Act of 1976 [RCRA], Toxic Substances Control Act of 1976 [TSCA], Pollution Prevention [P2], radionuclide National Emission Standards for Hazardous Air Pollutants [NESHAP], and polychlorinated biphenyls [PCB] annual document log), permits, and meeting other applicable requirements (refer to Appendix A)
- reviewing procedures/documents related to environmental compliance and resource protection
- performing environmental compliance oversight of field activities
- assisting the project(s) in implementing the elements of an EMS through the ISMS (refer to Appendix B)
- conducting periodic walkdowns and management or self-assessments of project areas.

## 2.13 SUBCONTRACTOR PERSONNEL

When UCOR work scope is subcontracted, the subcontractor is responsible for adhering to applicable federal, state, local, and DOE Orders and/or regulations and subcontract requirements. Managerial interfaces and responsibilities pertaining to EC&P activities shall be clearly defined, documented in project-specific work control documents, and understood. The subcontractor shall ensure that the work is performed within the requirements of the project documentation, subcontract, and ISMS/EMS. The subcontractor shall use qualified and trained EC&P personnel to implement their EC&P program and comply with all requirements. The subcontractor's EC&P personnel shall be familiar with all environmental compliance requirements in the subcontract documents, including but not limited to submittals, inspections, training, and self-assessments. The subcontractor's EC&P personnel may contact the UCOR EC&P project lead for clarification on requirements.

## 2.14 ENVIRONMENTAL STEWARDSHIP ORGANIZATION

The Environmental Stewardship Organization is responsible for developing regulatory strategy, interfacing with the Project Team regulators, maintaining status of Federal Facility Agreement deliverables, developing ARARs, and preparing regulatory documents for CERCLA. In addition, Regulatory Support personnel interface with the project manager, waste coordinator, and EC&P lead as necessary for regulatory document development and approval and resolution of issues.

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### 3. REPORTING AND RECORD KEEPING

#### 3.1 INCIDENT REPORTING AND NOTIFICATIONS

All UCOR project and subcontractor personnel shall immediately notify their supervisor, FM, or the Shift Superintendent (e.g., Park Shift Superintendent [PSS] or Laboratory Shift Superintendent [LSS]) via telephone, e-mail, fax, etc., of any unpermitted discharge or release of a hazardous or radioactive material including oil, to the environment. In addition, any release above legal limits shall be reported to the UCOR EC&P Lead through the project SCC or STR within 30 minutes of the incident. Certain environmental permits (e.g., RCRA, Clean Air Act [CAA], National Pollutant Discharge Elimination System [NPDES]) may have additional requirements. According to 40 Code of Federal Regulations (CFR) Part 43 Sect. 11.20, the On-Scene Coordinator or lead agency shall notify federal and state natural resource trustees when natural resources have been or are likely to be injured by a discharge of oil or release of a hazardous substance being investigated under the National Contingency Plan.

#### 3.2 SITE-WIDE PERMITS AND REPORTS

UCOR organizations shall provide information required for complying with site-wide permits and preparing site-wide environmental reports, as described in the following sections, to the EC&P Program. UCOR APMs and subcontractors shall also coordinate with and provide required data and information to the EC&P staff necessary to comply with all applicable requirements under existing site permits, environmental regulations, applicable DOE Orders, and public or regulatory information requests.

The project EC&P staff shall combine information from certain UCOR projects together with other DOE ORR Prime Contractors' information into site-wide reports. In some cases, a project may provide information directly to a DOE ORR Prime Contractor for its use in preparing the site-wide report for the site at which that UCOR project is located.

For scopes of work that continue from one calendar year to the next year, the due dates for submitting annual reports are noted below in the following subsections. For scopes of work that end before the end of the calendar year, the annual reporting information must be provided as a condition of the subcontract closeout. For UCOR self-performed work, the annual reporting information should be provided to the EC&P staff prior to demobilizing the project and project team.

##### 3.2.1 RCRA Annual Report

The UCOR APM, or designee, and subcontractors (via the SCC or STR) shall submit data for the RCRA annual report to the project EC&P Lead when work on a project is completed or no later than January 10<sup>th</sup> for the prior reporting year, whichever occurs first. Data required in the submittal is defined in Tennessee Rule (TR) 0400-12-01-.03. Other required actions include field verification of waste tracking inventory data and provision of copies of UCN-2109 forms, bulking sheets, lab pack forms, bills of lading, or other pertinent container data per PPD-WM-2400, *UCOR Waste Management Program Plan*, to ensure that waste tracking information is correct. The management of RCRA waste is described in Sect. 16.1 of this PD. Data for CERCLA waste disposed in the Environmental Management Waste Management Facility (EMWMF) should not be included.

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### 3.2.2 RCRA Treatability Study Report

The UCOR APM, or designee, and subcontractors (via the SCC or STR) shall provide information and/or documentation required to comply with TR 0400-12-01-.02(1)(d)(5) to the Project EC&P Lead prior to beginning and during the treatability study.

### 3.2.3 TSCA PCB Annual Document Log

The UCOR APM, or designee, and subcontractors (via the SCC or STR) shall submit data for the PCB annual document log to the project EC&P Lead when work on a project is completed or no later than January 10<sup>th</sup> for the prior reporting year, whichever occurs first. Data required concerning container count, PCB concentration, physical form, accumulation start date, weight, and waste manifest information are defined in 40 CFR Part 761. Other required actions include field verification of waste tracking inventory data and provision of copies of UCN-2109 forms, bulking sheets, lab pack forms, bills of lading, or other pertinent container data in accordance with PPD-WM-2400, *UCOR Waste Management Program Plan*, to ensure that waste tracking information is correct. Other information required for the PCB annual document log includes dates of PCB inspections and copies of all PCB spill reports that occurred during the year. The management of TSCA PCB waste is described in Sect. 17 of this PD. Data for CERCLA waste disposed in the EMWMF should not be included.

### 3.2.4 EPCRA Sections 311 and 312 Reports

Data for these reports will routinely be included in the monthly hazardous materials inventory reports required by the WSHP. An exception is certain extremely hazardous substances (EHS) data. Changes in EHSs storage location and purchase or receipt of a new EHS must be reported immediately to the Hazardous Materials Information System Manager. The UCOR APM, or designee, and subcontractors (via the SCC or STR) shall submit additional information for these reports as requested by the EC&P Lead.

### 3.2.5 EPCRA Section 313 Report

The UCOR APM, or designee, and subcontractors (via the SCC or STR) shall submit data for the DOE site-wide Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) Section 313 report to the project EC&P Lead when work on a project is completed or no later than March 1<sup>st</sup> for the prior reporting year, whichever occurs first. Data required to be included in the submittal is defined in Executive Order 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements*. Initial information shall include the quantity of toxic chemicals being manufactured, processed, or otherwise used at subcontracted facilities or by project operations. EC&P shall identify the toxic chemicals that must be reported, and may request additional information for EPA Form R, including waste treatment, waste disposal, and release data for activities involving such chemicals at project and subcontractor facilities. Information required for a Form R shall be submitted to the EC&P Lead by May 1<sup>st</sup> of each year. The information required to be included in EPA Form R (EPA Form 9350-1 and subsequent revisions) and the instructions for completing a Form R are discussed in 40 CFR 372.85.

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### 3.2.6 DOE Annual Site Environmental Report

The EC&P Organization submits information for inclusion in the DOE ORR Annual Site Environmental Report (ASER) in accordance with DOE Order 231.1B, 1, *Environment, Safety and Health Reporting, Attachment 1, Contractor Requirements Document*. Information typically required includes the following:

- annual summary of compliance-related activities (e.g., results of compliance inspections, operating compliance history, status of Notices of Violation received)
- summary tables of monitoring results
- brief narrative summary of monitoring results

Subcontractors (via the SCC or STR) shall submit information for use in the ASER as requested by the project EC&P Lead.

### 3.2.7 Radionuclide NESHAP Annual Report

The UCOR APM, or designee, subcontractors (via the SCC or STR), and at the request of DOE any Environmental Management projects under separate prime contract shall submit data for the radionuclide NESHAP annual report to the project EC&P Lead when work on a project is completed or no later than March 1<sup>st</sup> for the prior reporting year, whichever occurs first. Submittals shall include radionuclide emissions data and estimates (and associated calculations and backup information) for the reporting period for all point sources at their respective project facilities using one of the methods approved by EPA, and a list of radionuclide fugitive emission sources. Emission monitoring, including periodic stack flow verification, shall be in accordance with Sect. 14.1.1 of this PD and with the installation radionuclide NESHAP Quality Assurance Plan.

### 3.2.8 Asbestos Annual Inventory Report

The UCOR APM, or designee, and subcontractors (via the SCC or STR) shall prepare and submit an estimate of the amount of asbestos to be abated from minor asbestos renovation projects that are exempt from individual notice requirements that are planned for performance during the coming calendar year. The estimate shall be submitted to the project EC&P Lead by December 1<sup>st</sup> of each year. This estimate should not include asbestos to be abated under CERCLA.

### 3.2.9 Inventory of Federal Agency Hazardous Waste Activities (RCRA Section 3016 Report)

During January of even-numbered years, the EC&P Organization shall review information provided by DOE to complete the Inventory of Federal Agency Hazardous Waste Activities. When requested, subcontractors (via the SCC or STR) shall submit required information to UCOR that may include, but is not limited to, summaries of environmental monitoring data, site characterization, response actions, number of tanks, number of container storage facilities, etc.

### 3.2.10 DOE ORR Environmental Monitoring Plans

The ORR Environmental Monitoring Plan (EMP) document (DOE/OR-2227, latest revision) is maintained and periodically updated by DOE Prime Contractor University of Tennessee-Battelle (UT-Battelle). The ORR EMP describes the routine surveillance monitoring conducted across the ORR, exclusive of the site-specific monitoring programs. Monitoring under the ORR EMP is conducted in

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support of compliance with DOE Orders 5400.5 and DOE Order 458.1, *Radiation Protection of the Public and the Environment, Attachment 1, Contractor Requirements Document*, and DOE Order 436.1, *Departmental Sustainability, Attachment 1, Contractor Requirements Document*, governing environmental protection. [NOTE: DOE Order 458.1 cancels DOE Order 5400.5; however, project specific agreements (e.g., applicable, relevant, or appropriate requirement documents for CERCLA projects) dictate which Order is the controlling document.]. Results of this monitoring are reported in the *Oak Ridge Reservation Annual Site Environmental Report*. UCOR reviews the ORR EMP periodically to ensure that there is no duplication of effort between the ORR monitoring and site-specific monitoring programs.

At ETTP, monitoring is conducted by several programs, each specific to the media and regulatory driver. The ETTP does not currently have a site-specific EMP that encompasses all of these programs in a single document. Rather, requirements of the individual ETTP monitoring programs are spelled out in program-specific sampling and analysis plans. Results from these programs are also reported in the *Oak Ridge Reservation Annual Site Environmental Report* and in the *ETTP Environmental Monitoring Quarterly Data Reports*.

### 3.2.11 Pollution Prevention Reports

The EC&P Organizations' Pollution Prevention/Waste Minimization Coordinator prepares and submits the Annual Hazardous Waste Reduction Progress Report, which is a regulatory requirement for the site. Additionally, waste minimization data is provided and incorporated into the Annual Report of Hazardous Waste Activities (a.k.a. RCRA Report). The regulatory drivers directing the goals and activities of the Oak Ridge Environmental Management and Pollution Prevention/Waste Minimization Program are provided in Appendix P.

The Annual Hazardous Waste Reduction Progress Report is a site-specific report that measures the progress made in the reduction of hazardous waste streams and is updated annually in March in compliance with the Tennessee Hazardous Waste Reduction Act (THWRA) of 1990. The report documents the annual review of the site waste reduction plan and completion of summary waste reduction information as part of the site's annual hazardous waste reporting. The ETTP's hazardous waste streams regulated under the THWRA are described and annual progress toward meeting goals during for the calendar year is quantified.

### 3.2.12 Annual Solid Waste Management Units Update Report

UCOR shall prepare and submit a revised table from Attachment 4.1 of the Hazardous and Solid Waste Amendments Tennessee Hazardous Waste-164 (HSWA TNHW-164) along with a summary of additions and deletions during the preceding year for solid waste management units (SWMU) and areas of concern (AOC). This shall be completed and submitted to TDEC by January 30<sup>th</sup> of each year.

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#### 4. HAZARD ASSESSMENT AND CONTROL

The UCOR APM, or designee, and, for subcontracted work, the Project Safety Representative, shall ensure completion of a Job Hazard Analysis (JHA) for non-routine work that may introduce new hazards not previously addressed. As a part of this JHA, significant environmental compliance and natural and historic/cultural resource protection issues and environmental permits shall also be identified. These JHAs shall provide a detailed, job-specific hazard assessment that addresses each step of the work process, the hazards involved, and the controls for those hazards to mitigate or eliminate impacts on the environment. UCOR or subcontractor personnel (or representative personnel) that will be performing the job tasks shall participate in the preparation of the JHA to ensure that all necessary steps for completion of work have been identified and evaluated and that appropriate measures to control or mitigate the hazards have been addressed.

Prior to start of non-routine work, the UCOR or subcontractor supervisor shall complete a pre-job hazard briefing with all employees involved in the work activities. EC&P concerns, actions, and activities will be discussed as part of this pre-job hazard briefing in addition to work to be performed, other safety and health hazards, and the controls (procedures, permits, personal protective equipment, etc.) involved with the safe performance of work.

Work package documentation shall be followed to ensure that work is adequately defined and necessary environmental and resource protection controls are in place to mitigate all potential EC&P issues. EC&P Leads, or designees, will review and approve work packages that have environmental compliance and environmental impact considerations in accordance with PROC-FS-1001, *Integrated Work Control Program*.

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## 5. TRAINING AND AWARENESS

The UCOR project organization shall maintain position assignment forms or project training matrices describing the training required for their own employees working on projects. Subcontractors shall define the training requirements for their own personnel. Training information shall be maintained onsite and available for review. All employees' training is to be reviewed at least annually to determine if refresher training or requalification is required. The UCOR training requirements can be found in *URS / CH2M Oak Ridge LLC (UCOR) Training Requirements Matrix (TRM), Oak Ridge, Tennessee (UCOR-4350)*.

A number of awareness tools have been developed to increase general knowledge and awareness of UCOR's environmental policy and to communicate roles and responsibilities for all employees. Employees and subcontractors involved in a work activity that may have a significant impact on the environment are provided additional information through review of work packages, procedures, pre-job briefings, and review of Safety Task Analysis Risk Reduction Talk (STARRT) Cards which address potential environmental issues and concerns. Some examples of these tools include the following:

- UCOR Environmental Compliance and Protection Awareness Handbook, Oak Ridge, Tennessee (UCOR-4088)
- UCOR Newslines
- Employee Information Monitors
- EMS Fact Sheets
- Environmental Pagers
- Internal UCOR EMS Website
- Internal UCOR Home Page Web Content
- Meeting Safety Topics
- Safety Pause Meetings
- Safety Advocate (monthly ESH&QA Newsletter)

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**6. EXCAVATION AND PENETRATION WORK PERMITS**

All UCOR project and subcontractor personnel work involving exterior excavation/trenches or penetration into the earth surface, concrete, or pavement, and interior surface penetrations in building walls, floors, and ceilings shall be conducted in accordance with PROC-FO-1004, *Excavation/Penetration*, and equivalent UT-Battelle and Consolidated Nuclear Security, LLC (CNS) procedures for work performed at the Oak Ridge National Laboratory (ORNL) and Y-12 National Security Complex (Y-12 NSC), and 29 CFR 1926 Subpart P, Excavations. EC&P shall review and approve all excavation/penetration permits (using Form-147, Excavation Permit, Form-3129 Penetration Permit) to ensure environmental compliance, the controls for natural resources protection are adequate, and that activities will be conducted in accordance with all applicable land use controls. These reviews will include an evaluation of sensitive natural, cultural, and historic resources, and the potential for impacts to SWMUs or CERCLA AOC.

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## 7. EMERGENCY RESPONSE AND REPORTING

All UCOR project and subcontractor personnel shall operate under the *DOE ORR Emergency Plan ETTP-Volume 3*, PPD-EP-3023, *Emergency Management Organization Program Description*, implementing procedures, and any site-specific plans (e.g., RCRA contingency plan) to ensure implementation of emergency response, including notification, reporting, and recovery. Request for emergency response shall be directed to the PSS/LSS. UCOR or subcontractor personnel identifying an environmental emergency shall immediately contact the PSS/LSS. Subcontractor personnel should also notify the SCC or STR. If unidentified or unanticipated substances are released during activities, operations should cease and the PSS/LSS shall be notified. An effort to shut down the affected system should only be made if it can be done safely.

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## 8. COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

A majority of the D&D activities and media (e.g., soil and groundwater) remediation response actions at DOE sites on the ORR are conducted under the authority of CERCLA. CERCLA activities are governed by individual CERCLA decision documents (e.g., ROD or Action Memorandum) and according to requirements stated in the *Federal Facility Agreement for the Oak Ridge Reservation* (DOE/OR-1014). The Federal Facility Agreement describes how CERCLA actions on the ORR will be performed and how DOE, EPA, and TDEC interact in agreeing on the work to be performed, performing the work, and documenting completion of the work.

ARARs for the selected remedy are the substantive environmental protection requirements for environmental remediation responses for the protection of public health and the environment (e.g., removal actions and remedial actions) conducted under CERCLA.

Onsite CERCLA response actions need comply only with the substantive requirements of a regulation and not the administrative requirements, such as obtaining federal, state, or local permits. ARARs identify these substantive requirements to ensure CERCLA actions comply with requirements and standards under federal or state environmental laws and regulations that are applicable or relevant and appropriate to the particular circumstances or conditions at a site. Other requirements that may apply to CERCLA actions, but would not be identified as ARARs, include OSHA, worker protection requirements, DOE Orders, UCOR business and procedural requirements, etc. Project EC&P Leads are responsible for reviewing project work packages and other project documentation to ensure that project activities are in compliance with ARARs. The EC&P Lead will consult with Environmental Stewardship on interpretations or to resolve ambiguities.

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## 9. NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE

All UCOR project and subcontractor personnel shall implement measures to ensure National Environmental Policy Act of 1969 (NEPA) process reviews and protection of natural and historic/cultural resources are incorporated into all work planning efforts as required in 10 CFR Part 1021, National Environmental Policy Act Implementing Procedures. UCOR and subcontractor personnel work activities that are not driven by CERCLA authority shall be evaluated by UCOR projects in accordance with PPD-EC-3253, *National Environmental Policy Act Program Description for URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee*, which describes implementation of the Environmental Compliance and Protection Review Checklist (Form-539). The EC&P review checklist shall be used to evaluate many NEPA values, such as historic preservation, endangered species protection, and floodplains/wetlands protection. For subcontract work, the completed checklist and supporting documentation shall be submitted to the SCC or STR and forwarded to the EC&P Lead for review and evaluation. This evaluation, as documented by the NEPA Review Report, shall be submitted to DOE. When new (non-CERCLA) projects are initiated, work activities that are not covered under a generic NEPA determination shall not proceed until the appropriate NEPA determination is granted by the DOE-Oak Ridge Office (ORO) NEPA Compliance Officer.

For CERCLA actions, NEPA values shall be incorporated into CERCLA documents. The Environmental Compliance and Protection Review Checklist (Form-539) should be used as guidance for identifying NEPA values that must be addressed as part of the planned CERCLA action as cited in and required by PPD-EC-3253, *National Environmental Policy Act Program Description for URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee*.

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**10. NATIONAL HISTORIC PRESERVATION ACT COMPLIANCE**

Some project activities will have potential or actual impacts on historic, cultural, or archaeological resources such as properties and structures (e.g., buildings, bridges, burial grounds, and other man-made structures) identified in the Cultural Resources Management Plan (CRMP), DOE Oak Ridge Reservation, Anderson and Roane Counties, Tennessee, as being eligible for listing on the National Register of Historic Places (refer to 36 CFR Part 60, National Register of Historic Places; 36 CFR Part 68, The Secretary of the Interior’s Standards for the Treatment of Historic Properties; 36 CFR Part 800, Protection of Historic Properties; and 43 CFR Part 7, Protection of Archaeological Resources). There is also a potential for discovery of structures or properties that contain Native American remains or artifacts or early settler remains or artifacts during site grading and excavation activities, in particular near or in floodplain areas (refer to 36 CFR 296, Archaeological Resources Protection Act, and 43 CFR 10, Native American Graves Protection and Repatriation Act). Additional compliance requirements and references are in PPD-EC-3193, *National Historic Preservation Act Program Description for URS | CH2M Oak Ridge LLC*, and are listed in Appendix A of this PD. Work will be suspended pending evaluation if any such resources are discovered during conduct of the project.

Prior to commencing field activities that will impact historic properties or structures located inside the ETPP, Y-12 NSC, or ORNL Main Plant Historical Districts, the Section 106 process of the National Historic Preservation Act (NHPA) must be completed as applicable. The State Historical Preservation Officer (SHPO) and the Advisory Council on Historic Preservation ensure that historic properties are considered in planning any activities undertaken by a federal agency. Section 106 of the NHPA requires federal agencies (i.e., DOE) to take into account the effects of their undertakings on historic properties and to afford the Advisory Council a reasonable opportunity to comment on such undertakings, and stresses it is crucial that agencies initiate the Section 106 process at a point where alternatives have not yet been foreclosed. Project schedules may be impacted because of this statutory requirement for obtaining review and agreement by the SHPO prior to commencing actions that will affect historic properties. It is therefore important that APMs notify EC&P as early as possible when plans for building demolition or alteration activities are accelerated from the published schedules, to allow sufficient time for the required Memorandum of Agreement to be negotiated for these properties with the Tennessee SHPO. This will act to preclude potential negative impacts to schedules.

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## 11. OTHER SENSITIVE RESOURCES

### 11.1 FLOODPLAINS/WETLANDS IMPACTED BY PROJECT ACTIVITIES

Projects with potential environmental impacts in floodplains and wetlands will be identified during a review before work proceeds, and measures such as minimum grading requirements, runoff controls, design and construction constraints, and actions will be taken as appropriate to avoid or mitigate adverse impacts to ecologically sensitive areas. Planning and scheduling considerations should include the requirements for public notifications prior to commencement of field activities. For a proposed floodplain or wetland action for which an Environmental Impact Statement is required, DOE requires use of applicable NEPA procedures and submittal of NEPA documentation to provide the opportunity for early public review of the proposed action. Subcontractors (via the SCC or STR) and the UCOR EC&P Lead, or designee, shall submit completed EC&P review checklists and applicable NEPA documentation to UCOR project file prior to commencement of fieldwork. When no Environmental Impact Statement is required, DOE requires notice of proposed floodplain or wetland action to appropriate government agencies (e.g., Federal Emergency Management Agency regional offices, the state, and tribal and local governments) and to persons or groups potentially affected by the proposed floodplain or wetland action.

For CERCLA actions, projects need only comply with the substantive requirements, as identified in the project ARARs, to protect these resources. The project does not need to comply with procedural and administrative requirements such as public and governmental notifications and permits.

### 11.2 THREATENED/ENDANGERED SPECIES AND NATIVE BIOTA

Both the Federal government and the State of Tennessee have compiled lists of plants and animals that require protection. These lists are further subdivided, in the order of increasing criticality, into the categories of “In Need of Management”; “Threatened”; and “Endangered”. Species on these lists have been documented from ETTP, the vicinity of the EMWFMF, and nearby areas of the ORR. Pre-operational planning of projects that involve disturbance of areas in the field will include consideration of this factor as part of the NEPA review. Precautions will be taken so that no state or federal threatened or endangered plant or animal species will be adversely affected by the project activities. In addition, impacts to native biota (e.g., indigenous plants and animals) and wildlife habitat will be kept to the minimum necessary to execute the project.

The Migratory Bird Treaty is an international treaty designed to help protect birds that regularly migrate across international borders. The Migratory Bird Treaty Act is the Federal law that sets forth the requirements for compliance with the treaty within the borders of the United States. Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, ordered that Federal agencies will comply with the requirements of the treaty to the extent practicable.

A Memorandum of Understanding is in effect between DOE and the U.S. Department of the Interior’s Fish and Wildlife Service regarding the implementation of the Executive Order. Under this Memorandum of Understanding, migratory birds, their eggs, and nests receive protection. This protection extends to habitat and nesting areas. Pre-operational surveys are used to determine if protected species are present. To the extent practicable, field activities that may disturb these species will be planned to coincide with the times that these species are absent. In the event that destruction of any species of birds, eggs, or nests is unavoidable, the Fish and Wildlife Service, U.S. Department of Agriculture, and the Tennessee Wildlife Resources Agency will be consulted, as appropriate.

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## **12. UNEXPECTED HISTORIC, CULTURAL OR ECOLOGICAL SITE CONDITIONS**

After performing appropriate reviews and site evaluations to identify historic, cultural, or ecological resources as part of the project planning process, it is nonetheless still possible that such resources will be encountered unexpectedly on a project as a direct result of excavation work or other activities. In this event and before the conditions are disturbed, project and subcontractor personnel shall promptly notify the EC&P Lead of any unexpected surface, subsurface, or hidden conditions (including physical, natural, or cultural) encountered on the site during fieldwork.

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### **13. HAZARDOUS MATERIALS MANAGEMENT**

Proper use and storage of hazardous materials are essential to preventing spills and other unplanned releases to the environment. Management of hazardous materials, including the maintenance of monthly hazardous materials inventories, is addressed in the WSHP.

Pesticides and herbicides may be used in conjunction with project activities. Any use of such chemicals will be in accordance with the manufacturer's labeling. Use or storage of restricted pesticides shall be in accordance with 40 CFR Part 152.175, Pesticides Classified For Restricted Use; 40 CFR Part 171, Certification of Pesticide Applicators; and TR 0080-6-16, Regulations Governing Use of Restricted Use of Pesticides. All outdoor use of pesticides and herbicides must be performed in accordance with applicable NPDES Storm Water Pollution Prevention Program requirements.

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## 14. CLEAN AIR ACT

### 14.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS COMPLIANCE

#### 14.1.1 Radionuclide NESHAP

The Radionuclide NESHAP regulations in 40 CFR Part 61, as supplemented by the *Compliance Plan: National Emission Standards for Hazardous Air Pollutants for Airborne Radionuclides on the Oak Ridge Reservation*, March 30, 2005 (DOE/ORO/2196), and DOE Order 458.1, *Attachment 1, Contractor Requirements Document*, require that radiological air emission points be evaluated for their potential to affect members of the public located offsite or onsite in areas where DOE physical access controls are not maintained and where personnel do not have DOE access badges. The potential effective dose (PED) to the hypothetical maximally exposed member of the public shall be evaluated using approved methods for any new radiological emission points or significant changes to existing emission points as a result of the project activities. Any source for which the PED is 0.1 millirem (mrem) per year or greater shall be a major source and emissions shall be monitored in accordance with DOE and regulatory requirements. Sources with a PED of less than 0.1 mrem per year are minor sources that do not require monitoring, but do require confirmation of low emissions (normally by approved calculation methods). Compliance requirements under radionuclide NESHAP regulations are described in Appendix C-1 of this PD. For major sources with an annual dose determined to be 0.1 mrem or greater, refer to Sect.14.3.

UCOR will maintain an ambient air monitoring program that shall collect data that meets regulatory data quality objectives. Air monitoring for radionuclide fugitive emissions is primarily accomplished through a system of site-wide perimeter air monitors. However, based on a project evaluation by EC&P staff, additional project-specific ambient air monitors located within a site-wide system may be required for D&D or remediation efforts. Subcontractors may be required to provide equivalent programs if such D&D or remediation activities that require air monitoring are specified in applicable scopes of work.

If a portable high-efficiency particulate air filter is needed for control of radionuclide emissions, a notification from the project line organization shall be submitted to the EC&P Lead as far in advance of commencing field activities as possible. The EC&P Lead shall ensure that the required dose evaluation is performed to verify that the unit shall be a minor source and to ensure that the source is included in the radiological NESHAP annual report. The notification and evaluation effort is required any time a forced air ventilation unit discharges directly into the environment. Subcontractors may be required to provide equivalent programs and submittals if such D&D or remediation activities that result in radionuclide emissions are specified in applicable scopes of work.

#### 14.1.2 Asbestos NESHAP

National emission standards for asbestos are found in 40 CFR Part 61, Subpart M, National Emissions Standards for Asbestos, and TR 1200-3-11, Hazardous Air Contaminants. Standards for the demolition and renovation of facilities, and for submitting notification of planned non-CERCLA demolition and asbestos removal activities to regulators before such work commences, are presented in TR 1200-3-11-.02(2)(d). UCOR project and subcontractor personnel performing asbestos abatement/cleanup shall comply with the NESHAP requirements as specified in Appendix C-2 of this PD. For projects being implemented under CERCLA, certain requirements may not be applicable depending

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on whether the requirement is “substantive” or “administrative”; ARARs shall be evaluated for applicability under CERCLA authorized activities. Demolition or other asbestos removal activities performed under CERCLA are exempt from Notice of Asbestos Demolition or Renovation (NADR) submittal requirements; however, relevant information is communicated to TDEC through the applicable CERCLA project team as previously agreed.

For all other non-CERCLA, facility-wide nonscheduled renovations involving small (i.e., less than reporting threshold) quantities of regulated asbestos containing material, regulations require that the cumulative annual amounts of regulated asbestos containing material be projected for each coming calendar year. This projection must be submitted to TDEC prior to the beginning of the coming calendar year per regulations as specified in TR 1200-3-11-.02(2)(d)1(iv)(III).

## 14.2 OZONE-DEPLETING SUBSTANCES

Federal standards for the protection of stratospheric ozone and the control and management of ozone-depleting substances are promulgated under the CAA and addressed in 40 CFR Part 82. Specific requirements for the recharging and repairing of refrigeration equipment are found under 40 CFR Part 82, Subpart F, Recycling and Emission Reduction. UCOR project or subcontractor personnel that manage and recycle ozone-depleting substances such as refrigerants or refrigerant containing equipment shall comply with the requirements of Appendix D of this PD.

In accordance with Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, and DOE Order 436.1, *Departmental Sustainability, Attachment 1 Contractor Requirements Document*, the use of ozone-depleting substances (ODS) shall be managed to ensure meeting both site sustainability goals and reduce emissions. UCOR will maintain a management program that will (1) reduce or eliminate the use of ODS in new equipment and facilities, (2) phase out existing ODS containing equipment as existing equipment reaches its expected service life, and (3) the maintenance of equipment is conducted to prevent or fix ODS leaks. The replacement of leaking equipment is carried out when leak repair is no longer cost effective or where it is life-cycle cost effective to replace the equipment.

## 14.3 CONSTRUCTION AND OPERATING PERMIT COMPLIANCE

Unless specifically exempted, any person wishing to construct an air contaminant source or to modify an existing air contaminant source is required to obtain a permit from the Tennessee Division of Air Pollution Control (APC) prior to construction or modification. Air contaminant sources typically are classified as major or minor sources depending on their potential to emit pollutants. Major sources generally are (1) sources that are in specific source categories listed in part 1200-03-09-.01(4)(b)1 of the Tennessee Air Pollution Control Regulations and have potential total facility emissions greater than 100 tons per year (tpy), (2) other sources with potential total facility emissions greater than 250 tpy or more of the following criteria pollutants: carbon monoxide, particulate matter, nitrogen dioxide, sulfur dioxide, lead and ozone (indirectly determined from emissions of volatile organic compounds and nitrogen oxides) and, (3) a source with an annual dose impact on the most exposed member of the public to be 0.1 mrem or greater.

Unless specifically exempted, persons planning to operate an air contaminant source require an operating permit from APC. New construction permit applicants who are non-Title V sources are required to apply

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for a state operating permit within 30 days of startup. The 30-day period may be extended when stack sampling is required as a condition of the construction permit.

Facilities that have the potential to emit more than 100 tpy of an air pollutant, ten tpy of a hazardous air pollutant, and/or 25 tpy of a combination of hazardous air pollutants are not eligible for a state operating permit but must obtain a Title V Operating Permit.

Title V of the CAA Amendments establishes a permitting program that is administered by the State of Tennessee. Title V requires that all air pollution sources subject to regulation be compliant with all air quality standards and have a permit. The TDEC Division of APC has issued air-operating permits for major air pollution sources currently operating under authority of the federal law through the Tennessee Air Quality Act <Tennessee Code Annotated [TCA] 68-201-101 and TR 1200-3>. In addition, 40 CFR Part 790, Procedures Governing Testing Consent Agreements and Test Rules, establishes procedures for gathering information, conducting negotiations, and developing and implementing test rules or consent agreements on chemical substances and mixtures under Section 4 of TSCA.

APC Rule Chapter 1200-03-09 contains the general requirements for construction and operating permits.

UCOR project and subcontractor personnel shall evaluate non-CERCLA projects for new potential air pollution sources or planned modifications to an existing source and submit notification to the EC&P Lead prior to beginning work. This source review will determine if a permit application or permit modification is required. The construction of a new source or modification of an existing source cannot begin until after a new or modified permit has been obtained or the review has determined that potential emissions from the planned source would be exempt.

In addition to major air source requirements, Title V and TR 1200-3 regulations require that industrial facilities maintain a system that evaluates and tracks minor air emission sources. Minor air emissions sources fall into two general groupings. The first grouping of sources are determined by state regulations to be “categorically” exempt from permitting requirements due to the type of operation being conducted. The second grouping of minor air emission sources is operations that are exempt from major source status due to the calculated emission levels being less than trigger thresholds. The calculations used to determine that a source emits amounts less than permitted levels must be maintained at the specific facility location to which the calculations apply and must be available at that facility for regulatory inspections and reviews. Notifications of new emission sources shall be submitted to the EC&P Lead (or EC&P Leads, where multiple projects exist on one site), who shall maintain a project file containing a site-level list of minor emission sources for the facility site at which their project(s) is located, to facilitate a timely response to regulatory reviews of minor source determinations. Subcontractors may be required to provide equivalent programs and submittals if such D&D or remediation activities that necessitate the tracking of minor air emissions sources are specified in applicable scopes of work.

#### **14.4 REGULATION OF FUELS AND FUEL ADDITIVES**

Under the CAA, no person shall sell, offer for sale, supply, offer for supply, dispense, transport, or introduce into commerce gasoline represented to be unleaded gasoline unless such gasoline meets the defined requirements for unleaded gasoline in 40 CFR Part 80.2(g); nor shall he dispense, or cause or allow the gasoline other than unleaded gasoline to be dispensed into any motor vehicle which is equipped with a gasoline tank filler inlet which is designed for the introduction of unleaded gasoline. Also, no person shall sell, offer for sale, supply, offer for supply, dispense, transport, or introduce into commerce

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for use as fuel in any motor vehicle any gasoline which is produced with the use of lead additives or which contains more than 0.05 gram of lead per gallon. Motor fuel distribution and dispensing facilities managed by UCOR or its subcontractor shall be managed according to applicable requirements in 40 CFR 80 and TR 1200-3, including allowing authorized state inspectors to collect fuel samples to determine that the fuel does not contain illegal constituents or additives.

Rule 40 CFR 80.7(a)(2) requires the wholesale purchaser-consumer (dispensing facilities managed by UCOR or its subcontractor) to maintain accessibility by regulators to the dispensing facility and capable of providing information consisting of the business or corporate name and address of the distributor, quantity of gasoline received, and the date of receipt. These records must cover, as a minimum, all deliveries received within the previous six months. Additional records subject to regulatory review can include unleaded pump meter readings at the dispensing facility, and receipts providing the date of acquisition of signs, labels, and nozzles required by 40 CFR 80.22.

Diesel equipped motor vehicles produced in 2007 and later (excluding units with engines manufactured in 2006) must be fueled with 15 parts per million (ppm) ultra-low sulfur content diesel (ULSD) only. All pumps that dispense ULSD must have an approved label. Pre-existing vehicles may continue to use the current 500 ppm low sulfur content diesel (LSD), although it is not available at ETPP refueling stations. Note that pre-2007 model vehicles may use either LSD or ULSD, while 2007 and later models must use exclusively ULSD.

#### **14.5 GREENHOUSE GAS EMISSIONS**

The EPA's Greenhouse Gas (GHG) Reporting Program, launched in October 2009, requires the reporting of GHG data from large emission sources across a range of industry sectors, as well as suppliers of products that would emit GHGs if released or combusted. 40 CFR 98 requires facilities that emit 25,000 metric tons or more per year of GHGs are required to submit annual reports to EPA.

UCOR project and subcontractor personnel shall evaluate non-CERCLA projects for new potential GHG sources and submit notification to the EC&P Lead prior to beginning work. This source review will determine if the facility is subject to annual reporting and any other applicable requirements specified under 40 CFR 98.

Executive Order 13514 defines three distinct scopes for purposes of reporting and tracking for demonstrating trends toward achieving GHG reduction goals. Scope 1 includes direct GHG emissions from sources that are owned or controlled by the Federal agency such as stationary sources, mobile sources, and oxygen depleting substances including some forms of refrigerants and fire suppression chemicals. Scope 2 encompasses GHG emissions resulting from the purchase of electricity, heat, or steam by a Federal agency. Scope 3 includes GHG emissions from sources not owned or directly controlled by a Federal agency but related to agency activities such as vendor supply chains, delivery services, and employee business travel and commuting. Annual GHG inventory and emissions information shall be prepared by UCOR or designated subcontractor and reported through the appropriate system defined by DOE.

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Rule 40 CFR 98 and the Executive Order 13514 list the following as GHGs:

- Carbon dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Nitrous Oxide (N<sub>2</sub>O)
- Hydrofluorocarbons (HFC)
- Perfluorocarbons (PFC)
- Sulfur Hexafluoride (SF<sub>6</sub>)
- Other fluorinated gases including:
  - Nitrogen trifluoride (NF<sub>3</sub>)
  - Hydrofluorinated ethers (HFE)

#### **14.6 RECIPROCATING INTERNAL COMBUSTION ENGINES**

The CAA has established national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. The CAA regulation, 40 CFR 63, Subpart ZZZZ, also establishes requirements to demonstrate initial and continuous compliance through fuel requirements, recordkeeping of required maintenance, and tracking operating hours to ensure meeting emission limitations and operating limitations. This includes fossil-fueled RICE powered emergency and non-emergency electrical generators and fossil-fueled RICE powered firewater booster pump systems.

UCOR project and subcontractor operations are subject to Subpart ZZZZ if the project currently owns or operates a stationary RICE, or could become subject to this subpart due to plans to install a stationary RICE at a major or area source of HAP emissions. A stationary RICE is also subject to TR 1200-03-09 that establishes the applicability for permitting. Appendix C-3 provides the requirements for RICE.

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## 15. CLEAN WATER ACT

### 15.1 ALTERATIONS TO AQUATIC RESOURCES

UCOR projects and subcontractor personnel that conduct any activity that involves the alteration of waters of the state may require state and possibly federal permits, as authorized under the Clean Water Act (CWA). Federal CWA <COE 404 and TVA 26a> permits shall be procured for projects involving the discharge of dredged or fill material into waters of the United States including wetlands <33 CFR parts 320 through 330>. State-issued Aquatic Resource Alteration Permits (ARAP) are required for any alteration of state waters, including navigable waters and wetlands. Examples of stream alteration activities that may require a separate individual permit <TR 0400-40-07 and TR 0400-40-08> from the TDEC Division of Water Resources include:

- Major dredging, widening, or straightening of a stream channel
- Bank sloping; stabilization
- Channel relocation
- Water diversions or withdrawals
- Dams, weirs, dikes, levees, or other similar structures
- Flooding, excavating, draining, and/or filling a wetland
- Road and utility crossings
- Structural fill

Not every activity requires a separate, individual permit. The TDEC Division of Water Resources issues general permits for specific stream alterations that cause minimal impact to water quality. Notification requirements are listed with each general permit. The following activities are covered by a general permit:

- Alteration of wet weather conveyances
- Construction and removal of minor road crossings
- Utility line crossings
- Bank stabilization
- Construction of intake and outfall structures
- Maintenance activities
- Minor dredging and filling
- Gravel removal
- Sediment removal for stream remediation
- Surveying and geotechnical exploration
- Emergency infrastructure repair
- Stream and wetland habitat enhancement
- Minor alterations to wetlands
- Construction of launching ramps and public access structures
- Minor stream grade stabilization
- Recreational prospecting

UCOR projects and subcontractor personnel that apply for a federal permit to conduct an activity that will result in a discharge into surface waters shall obtain a Water Quality/401 Certification from the TDEC Division of Water Resources. A 401 Certification states that the discharge complies with the aquatic

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protection requirements of the state. Necessary measures shall be taken by UCOR project and subcontractor personnel to control to the extent practicable the erosion of soil and sediments resulting from construction activity <TR 0400-40-07, Aquatic Resource Alteration, and 40 CFR Part 122>. Federal permits that require 401 Certification from the TDEC Division of Water Resources include CWA Section 404 permits from the U.S. Army Corps of Engineers and 26a permits from the Tennessee Valley Authority.

For surveying and geotechnical exploration and wet weather conveyance alterations, no notification to the TDEC Division of Water Resources is required. All other activities covered by the general permits do have notification requirements that must be reviewed. If the activity cannot be accomplished under the conditions of the general permit, an individual ARAP shall be required. For UCOR projects or subcontractor personnel involved with general permitted activities other than surveying and geotechnical exploration or wet weather conveyance alterations, a notification to TDEC Division of Water Resources is required under certain circumstances, using the Application for ARAP (CN-0191), and allowing up to 30 days for processing the general permit. In most cases the work shall not commence until written authorization is received from the TDEC Division of Water Resources.

For individual permits, projects or subcontractor personnel shall also submit the state's application for ARAP (Form CN-0191) and the proper fee, allowing up to 90 days for processing the individual permit. The form requires information concerning the applicant, location, schedule of activities, and a detailed description of the proposed activity. This includes the general purpose of the project, topographic maps, and detailed plans and blueprints of the proposed project.

For CERCLA actions, projects need only comply with the substantive requirements, as identified in the project ARARs, to protect these resources. The project does not need to comply with procedural and administrative requirements such as public and governmental notifications and permits.

## 15.2 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

Because operating facilities discharge storm water and wastewater to waters of the state, it is a CWA requirement to have a NPDES permit (refer to 40 CFR Part 122, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System, and TR 0400-40-05, Permits, Purpose, Application, When Issued, Action). A NPDES permit is in effect at ETTP for storm water discharges. There are no NPDES-permitted treatment facilities at ETTP that currently discharge to waters of the state. At Y-12 NSC and ORNL, a single NPDES permit for each site covers treatment facility and storm water discharges. Radioactive effluent discharges to surface water, groundwater, or a sanitary sewer are managed in accordance with the requirements of DOE Order 5400.5 or DOE Order 458.1, *Attachment 1, Contractor Requirements Document*. The ETTP NPDES permit for storm water discharges is maintained by the ETTP EC&P Operations Manager. At ORNL and Y-12 NSC, the NPDES permits are maintained by the respective DOE Prime Contractors' (UT-Battelle and CNS) environmental compliance organizations. Any liquid or solid (other than rainwater or other permitted discharge) discharging from a storm water outfall, including waterborne sediments resulting from erosion, could constitute an unpermitted discharge and result in a NPDES permit violation. Any observation of material being poured or washed into a storm drain shall be immediately reported to the PSS at ETTP, the Plant Shift Superintendent (PSS) at Y-12 NSC, or the LSS at ORNL.

A Storm Water Pollution Prevention Plan (SWPPP) is a requirement of each site's NPDES permit that covers storm water discharges. The SWPPP identifies (1) pollutant sources that are likely to affect the

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quality of storm water discharges, (2) UCOR requirements used to control the entry of pollutants into storm water discharges, (3) methods for implementing pollution prevention practices, and (4) training requirements for the applicable categories of workers, as defined in the site-level SWPPP. A SWPPP has been developed at ETTP (by UCOR), *East Tennessee Technology Park Storm Water Pollution Prevention Program Baseline Document* (UCOR-4255/latest revision); at ORNL (by DOE prime contractor UT-Battelle), *ORNL Storm Water Pollution Prevention Plan (SWP3) for Oak Ridge National Laboratory*, latest revision; and at Y-12 NSC (by DOE prime contractor CNS), *Y-12 Storm Water Pollution Prevention Plan* (Y/TS-1180/latest revision). Project and subcontractor personnel will evaluate potential NPDES and other environmental aspects/impacts pertaining to their project.

Necessary measures shall be taken by UCOR project and subcontractor personnel to prevent the discharge of pollutants (refer to 40 CFR Part 129, Toxic Pollutant Effluent Standards) into the storm water system during work activities. These measures may include best management practices (BMPs) that are part of the applicable site-wide SWPPP and/or guidelines included in a general NPDES permit for storm water discharges associated with construction activity. Coverage under the applicable NPDES general permit is required for any construction activity, including clearing, grading, and excavation, that will result in the disturbance of one or more acres of total land area. To obtain coverage under the general permit, a Notice-of-Intent and SWPPP must be prepared and submitted to TDEC, with a copy sent to the SCC or STR and EC&P Lead (not typically required for CERCLA actions), and a Notice-of-Coverage must be received from TDEC.

Releases of reportable quantities of hazardous substances designated under the Federal Water Pollution Control Act (refer to 40 CFR Part 116, Designation Of Hazardous Substances; 40 CFR Part 117, Determination Of Reportable Quantities For Hazardous Substances; and TR 0400-40-05, Effluent Limitations and Standards) that are not in compliance with an existing permit or allowed in accordance with other regulations must be reported (refer to Section 3.1). These regulations apply to discharges from a mobile source to a publicly owned treatment work or discharges that lead directly or indirectly to lakes, rivers, streams, intermittent tributaries, mudflats, sandflats, wetlands, or navigable waters of the United States.

Necessary measures shall be taken by UCOR project and subcontractor personnel to prevent the discharge of pollutants into publicly owned treatment works without meeting National Pretreatment Standards as required in 40 CFR Part 403, General Pretreatment Regulations for Existing and New Sources of Pollution, and the waste acceptance criteria established by the City of Oak Ridge Sewer Ordinance 9-91.

### 15.3 SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

In accordance with 40 CFR 112, the owner or operator of an onshore or offshore facility shall develop a written Spill Prevention, Control, and Countermeasure (SPCC) Plan if the facility has discharged or, due to its location, could reasonably be expected to discharge oil in quantities that may be harmful into or upon navigable waters of the United States or adjoining shorelines. Because of the oil storage facilities on the ORR and the close proximity to navigable waters (e.g., Clinch River and Poplar Creek), a *Spill Prevention, Control, and Countermeasure Plan for the East Tennessee Technology Park and the Environmental Management Waste Management Facility* (UCOR-4870) has been developed at ETTP (by UCOR); at ORNL (by DOE prime contractor UT-Battelle) the *Spill Prevention, Control, and Countermeasure Plan, Oak Ridge National Laboratory* (ORNL ECS/93-10), at Y-12 NSC (by DOE prime contractor CNS) the *Spill Prevention, Control, and Countermeasure Plan for the U.S. DOE Y-12*

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*National Security Complex (Y/SUB/02-001091), and at the ORR Landfills (by UCOR) the Spill Prevention, Control, and Countermeasure Plan for the Oak Ridge Reservation Landfills (UCOR-5079).*

Under each of these SPCC Plans, UCOR project and subcontractor personnel who are considered “oil-handling personnel” are required to have an annual discharge prevention briefing and be trained in accordance with 40 CFR Part 112.

UCOR or subcontractor personnel involved in oil handling operations shall complete SPCC training, including a discharge prevention briefing at least once a year, to comply with specific SPCC Plan requirements (per 40 CFR Part 112).

Appendix Q of this PD includes all other UCOR SPCC requirements.

#### **15.4 CONTROL OF RADIOACTIVE DISCHARGES TO SURFACE WATER, GROUNDWATER, OR SANITARY SEWER**

UCOR project and subcontractor personnel shall manage radioactive effluent discharges to surface water, groundwater, or a sanitary sewer to limit the dose to members of the public (onsite or offsite) and to reduce the potential for radiological contamination of natural resources such as land, groundwater, surface water, and ecosystems. Criteria for dose limits shall be the primary radiation protection standards established in DOE Order 5400.5 or DOE Order 458.1, *Attachment 1, Contractor Requirements Document*, and the applicable limits of EPA and state regulations.

#### **15.5 MODIFICATIONS TO LIQUID TREATMENT FACILITIES**

UCOR project and subcontractor personnel shall immediately notify the project’s UCOR EC&P Lead of any plans to modify the treatment process at the liquid treatment facility, significantly increase the influent, significantly alter the influent characteristics of the wastewater, modify waste acceptance criteria, or accept offsite wastewater for treatment. Such modifications shall be preapproved by the UCOR SCC or STR and appropriate regulatory agencies, where required.

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## 16. RESOURCE CONSERVATION AND RECOVERY ACT COMPLIANCE

RCRA was enacted in 1976 to ensure hazardous waste was properly treated before being land-disposed. RCRA-regulated waste streams on the ORR are generated either by on-going research and national security missions, or are part of the legacy waste population that is managed in RCRA-permitted units. Units that operate under a RCRA permit have stringent safeguards and management standards to prevent the unintended release of hazardous waste into the environment. RCRA waste that is not managed in permitted areas must be managed in accordance with specific federal and state regulations, as well as the UCOR requirements contained in this and other project-specific procedures. RCRA regulates all aspects of hazardous waste management from point of generation to disposal via a “cradle-to-grave” series of documentation referred to as the “manifest system.” Tennessee Rules governing hazardous waste are found in TR 0400-12-01-.01 through TR 0400-12-01-.06. Consistent with RCRA, state rules define solid waste as any discarded material that is abandoned, recycled, or inherently waste-like, such as those listed in TR 0400-12-01-.02(1)(b). Solid waste includes sanitary waste, construction debris, and any other discarded material. Hazardous waste is a subset of solid waste that is characteristically hazardous for ignitability, corrosivity, reactivity, or toxicity; or, has been determined to be hazardous by EPA from non-specific sources, specific sources, or discarded commercial chemical products, off-specification species, container residues, and spill residues of toxic and acutely hazardous wastes. Mixed waste is hazardous waste that also contains low-level radioactive contamination.

Solid waste that is not hazardous waste (see Section 16.4), generated from UCOR project activities, is usually disposed in regulated solid waste landfills, such as the government-owned landfill at Y-12 NSC, although commercial landfills can be utilized. Subcontractors may use these facilities depending upon the scope and terms of the specific subcontract.

Solid waste, defined as hazardous waste according to TR 0400-12-01-.02(3) and TR 0400-12-01-.02(4), generated from UCOR project activities may be treated and/or stored at permitted facilities onsite in preparation for offsite disposal at permitted facilities. Waste generated by subcontractors can be stored at these facilities only if specifically stipulated in the scope and terms of the subcontract documents.

UCOR projects and subcontractor personnel that generate and/or manage either RCRA hazardous, solid, or mixed low-level radioactive waste shall do so in accordance with PPD-WM-2400, *UCOR Waste Management Program Plan*. The Waste Information Form (Form-2396) and the Waste Stream Worksheet (Form-2395) shall be completed prior to generating the waste or any time a legacy waste drum is opened or otherwise managed except for sampling (i.e., overpacked, absorbent added, etc.) according to PROC-WM-2020, *Pre-Job Planning for Waste Generating Activities*. Generated, containerized waste shall have a UCN-2109 form prepared for that waste according to PROC-WM-2022, *Preparation of the UCN-2109 Data Package*, including containerized waste that will be sent to the EMWMF. The use of UCN-2109 forms, as specified in PROC-WM-2022, does not apply to the transfer of waste to the Liquid and Gaseous Waste Operations organization at ORNL.

Waste generators (UCOR or subcontractor personnel) shall conduct field verification of the appropriate waste tracking system inventory data and provide copies of UCN-2109 forms, bulking sheets, lab pack forms, bills of lading, or other pertinent container data for the appropriate waste tracking system input to ensure that waste-tracking information is correct. Hazardous waste spills should be reported using the Reporting Form for Spills of Hazardous Waste (Form-2946).

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## 16.1 RCRA WASTE MANAGEMENT REQUIREMENTS

Generators of hazardous waste (UCOR projects or subcontractor personnel) must manage hazardous waste in accordance with TR 0400-12-01-.02(1)(c), which identifies solid waste subject to regulation as hazardous waste under TR 0400-12-01-.03 through 0400-12-01-.07. ARARs for all wastes types generated under CERCLA actions are defined in action memorandums and RODs. Administrative requirements such as permits, storage time limits, and manifesting do not apply to onsite CERCLA actions.

Generators who treat, store, or dispose of hazardous waste onsite must comply with the appropriate sections of TR 0400-12-01-.03 with respect to that waste. Generators who transport, or offer for transportation, hazardous waste for offsite treatment, storage, or disposal must comply with the requirements of PPD-WM-2400, *UCOR Waste Management Program Plan*; PROC-WM-2013, *Certification of Waste for Disposal at the Nevada National Security Site*; PROC-WM-2024, *Identifying and Tracking Waste Containers for Shipment to Non-UCOR Facilities*; TR 0400-12-01-.03(3) for appropriate manifests and specified forms; TR 0400-12-01-.03(4) for packaging, labeling, marking, and placarding requirements; and TR 0400-12-01-.03(5) for record keeping and reporting requirements.

Transporters of hazardous waste must comply with the requirements of TR 0400-12-01-.04(1), TR 0400-12-01-.04(2), and TR 0400-12-01-.04(3) for managing hazardous waste manifests and records, and TR 0400-12-01-.04(4) when dealing with discharges and cleanups of hazardous waste that occur during transportation.

Permitted facilities used for treatment, storage, and disposal of hazardous waste must comply with the requirements of TR 0400-12-01-.06(2) for training, inspections, and quality assurance; TR 0400-12-01-.06(3) for facility design, operation, and maintenance; TR 0400-12-01-.06(4) for contingency plans and emergency procedures; TR 0400-12-01-.06(5) for manifests, record keeping, and reporting; and TR 0400-12-01-.06(6) for groundwater protection, monitoring, and compliance. Waste management requirements under RCRA are described in Appendix E-1 of this PD. Specific facility standards for RCRA hazardous waste permitted storage units are included in Appendix E-2 of this PD. Appendix E-3 provides examples of waste container labels.

Two types of non-permitted hazardous waste storage areas may be maintained by UCOR project and subcontractor personnel: satellite accumulation areas (SAAs) and 90-day accumulation areas (90-DAAs). In addition to the requirements stated in TR 0400-12-01-.03, generators of hazardous waste must also comply with the UCOR requirements for hazardous waste management found in Appendices E-1, E-2, E-3, and F. Hazardous waste generators and/or accumulation area managers are required to have annual site-specific hazardous waste management training in accordance with TR 0400-12-01-.05(2)(g) and Section 5 of this document. Appendix R of this PD describes the waste generator shipping requirements for RCRA waste, RCRA universal waste, PCB waste, regulated asbestos waste, and used oil.

## 16.2 SATELLITE ACCUMULATION AREA

A SAA is an area at or near the point where hazardous or mixed waste is initially generated that is under the control of the generator. The maximum volume of hazardous or mixed waste is limited to 55 gallons per waste stream (or one quart of acutely hazardous waste). SAAs shall be established and operated according to TR 0400-12-01-.03(4)(e)5(i) and the UCOR requirements in Appendix F. All SAAs shall be established and registered using the WMA Establishment Request (Form-2719) in accordance with

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PROC-WM-2021, *UCOR Waste Management Areas*. Notification shall be submitted to the project EC&P Lead for all SAAs (subcontractor personnel submit notifications to the SCC or STR for distribution). Appendix F also contains RCRA SAA guidance by referencing environmental pagers and UCOR requirements. Personnel who work in or have responsibilities associated with RCRA SAAs must comply with the training requirements included in the current UCOR training requirements matrix.

### 16.3 90-DAY ACCUMULATION AREA

A 90-DAA is a temporary storage area used to stage hazardous/mixed waste for 90 days or less before shipment to a permitted hazardous waste treatment/disposal or recycling facility. The 90-DAA shall be established and operated in accordance with TR 0400-12-01-.03(4) and the UCOR requirements in Appendix G. All 90-DAA shall be established and registered using the WMA Establishment Request (Form-2719) in accordance with PROC-WM-2021, *UCOR Waste Management Areas*. Notification shall be submitted to the project EC&P Lead for all 90-DAA (subcontractors submit notifications to the SCC or STR for distribution). Personnel who work in or have responsibilities associated with RCRA 90-DAA must comply with the training requirements included in the current UCOR training requirements matrix.

### 16.4 SOLID WASTE DISPOSAL ACT (NON-HAZARDOUS SOLID WASTE DISPOSAL)

The Solid Waste Disposal Act of 1965 (SWDA) was the first federal effort to improve waste disposal technology. Its principal aim was regulation of municipal waste disposal technology, while recognizing that solid waste management was essentially a local issue. The EPA was tasked with developing standards for waste disposal. The SWDA addressed how to dispose safely of large volumes of municipal and industrial solid wastes. Its purpose was to protect human health and the environment, to reduce wastes, and to limit the generation of hazardous waste.

Spent or discarded material not considered either hazardous or radiologically contaminated will be recycled when practicable (e.g., papers, cardboard, clear and clean glass, computers, and recyclable plastics). All solid waste generated on a project by UCOR project and subcontractor personnel shall be disposed of in accordance with TR 0400-11-01-.04. Most solid waste that is generated by non-CERCLA activities is disposed at the Y-12 NSC solid waste landfills. The landfills waste acceptance criteria are accessible through the UCOR intranet portal. Discarded electronics and circuit boards that are not radiologically contaminated are managed as scrap metal for recycling with the exception of computers that are sent for recycling and segregated by the recycler (into glass, plastics, etc.). Discarded electronics and circuit boards are to be stored in sturdy, closable containers labeled as containing scrap metal for recycle and are not subject to any accumulation time limits. The disposal requirements for SWDA (sanitary/industrial) wastes are provided in Appendix S.

Electronic items that contain intact cathode ray tubes must be stored in an area that protects the tube from being broken. Broken cathode ray tubes must be stored in a closable container that is labeled “used cathode ray tube(s)—contains leaded glass” or “leaded glass from televisions or computers.” Containers must also be labeled “do not mix with other glass materials.”

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## 16.5 USED OIL

Used oil is defined as any oil that has been refined from crude oil or synthetic oil and, as a result of use, storage, or handling, has become contaminated and unsuitable for its original purpose due to the presence of physical or chemical impurities or loss of original properties. It is stated in 40 CFR 761.20(e)(1) that used oil containing any quantifiable level of PCBs (2 ppm) may be marketed only to: (1) qualified incinerators, (2) marketers who market off-specified used oil for energy recovery only to other marketers who have notified EPA, and (3) burners identified in 40 CFR 279.61(a)(1)(2). Any material that meets this description must be labeled “used oil” and managed as used oil according to TR 0400-12-01-11 and the UCOR requirements found in Appendix H of this document, and the WMA Establishment Request (Form-2719) shall be completed for all used oil areas according to PROC-WM-2021, *UCOR Waste Management Areas*. Used oil includes synthetic oils, transmission and brake fluids, lubricating greases, etc. Used oil does not include products derived from either vegetable or animal fat; nor does it include solids that are contaminated with used oil (e.g., spent oil filters, oil-contaminated absorbent).

It is important to note that UCOR requires that full containers of recyclable used oil from non-CERCLA projects be shipped offsite for recycling within one year of the container reaching its full capacity.

## 16.6 UNIVERSAL WASTE

The universal waste regulations <TR 0400-12-01-12> specify less stringent management requirements for batteries, recalled pesticides, and stocks of unused pesticide products that are collected and managed as part of a waste pesticide collection program, mercury-containing equipment, and spent hazardous waste lamps in order to reduce the amount of these wastes sent to municipal waste landfills/incinerators and other nonhazardous waste management systems. Universal wastes include the following:

- batteries
- pesticides
- mercury-containing equipment
- lamps

The intent of the universal waste regulations is to ease regulatory burdens on businesses and to promote proper recycling, treatment, or disposal of these items. Generally, universal waste may be accumulated onsite for up to one year without a permit for non-CERCLA projects. Definitions of each universal waste (including examples), container management, and labeling requirements are specified in Appendix J of this document and the WMA Establishment Request (Form-2719) shall be completed for all universal waste accumulation areas according to PROC-WM-2021, *UCOR Waste Management Areas*.

## 16.7 AEROSOL CAN RECYCLING

Aerosol cans and other containers containing compressed gas(es) are considered hazardous waste because of the potential to be reactive when discarded. Since recycled aerosol cans are covered under the RCRA scrap metal exemption, they do not need to be managed as hazardous waste prior to being sent to an offsite recycling facility unless product remains in the can. Appendix I of this PD lists the UCOR requirements in regards to handling aerosol cans.

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## 16.8 UNDERGROUND STORAGE TANKS

Underground storage tanks (UST) containing petroleum and hazardous substances are regulated under the Energy Policy Act of 2005, Title XV, Subtitle B and the Underground Storage Tank Compliance Act amended Subtitle I, "Regulation of Underground Storage Tanks," of RCRA 40 CFR 280. EPA has granted Tennessee the authority to regulate USTs containing petroleum under the Underground Storage Tank Program, TR 0400-18-01. Operation of active petroleum USTs shall meet all regulatory requirements in accordance with Appendix K of this PD. USTs used for the storage of hazardous substances, including hazardous waste, are regulated under 40 CFR Part 261 by EPA Region 4 in the state of Tennessee and not by TDEC.

## 16.9 ABOVEGROUND STORAGE TANKS

Aboveground storage tanks (AST) are regulated according to their use and contents. In the state of Tennessee, operational compliance of ASTs used for the storage of petroleum products is not regulated by TDEC; instead, the State Fire Marshall enforces the Codes of the National Fire Protection Association (NFPA 30 and NFPA 30A) for the regulation of petroleum ASTs. In addition, ASTs storing petroleum may be subject to the SPCC regulatory requirements under 40 CFR 112 as administered by EPA. UCOR and subcontractor personnel shall manage ASTs used for the storage of hazardous waste according to the applicable sections of TR 0400-12-01, Hazardous Waste Management, 40 CFR Parts 260-279. All ASTs may be subject to requirements of the CAA and CWA, and the applicability of specific requirements will be determined by the appropriate EC&P Lead.

## 16.10 HAZARDOUS AND SOLID WASTE AMENDMENTS TNHW-164

HSWA TNHW-164 requires that DOE determine whether there have been any releases of hazardous waste or hazardous constituents from pertinent SWMUs or AOC on the DOE ORR, regardless of the time at which waste was placed in such units. HSWA TNHW-164 requires that appropriate action be taken for any releases.

UCOR and subcontractor personnel shall comply with the requirements in HSWA TNHW-164. According to PROC-EC-3014, *SWMU/AOC Reporting Under the ORR Hazardous Waste Corrective Action Document*, project personnel shall notify the project EC&P Lead immediately regarding the creation of a new SWMU or the discovery of a unit that could be a SWMU or an AOC. Project personnel shall also notify the project EC&P Lead of any new release of hazardous waste or constituents to the environment that may trigger reporting under the HSWA TNHW-164. Subcontractor personnel shall also notify the SCC or STR. UCOR shall notify TDEC within 30 days of discovery of a new SWMU or AOC or a new release from an existing SWMU or AOC within 30 days of discovery.

HSWA TNHW-164 also requires an annual update to the table in Attachment 4.1 along with a summary of additions and deletions during the preceding year by January 30<sup>th</sup> of each year.

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### **16.11 PERMIT FEES**

Unless otherwise stated in the subcontract, the subcontractor shall be responsible for the payment of all fees associated with environmental permits. For site-wide permits held by DOE or UCOR for subcontractor operations, the payment shall be made by UCOR. For permits held solely by the subcontractor, payment shall be made directly by the subcontractor to the appropriate regulatory agency. For permits involving only subcontractor activities where the permit is held by DOE, UCOR, and/or the subcontractor, the subcontractor shall submit the payment to UCOR for transmittal to the appropriate regulatory agency.

### **16.12 RCRA-CONTAMINATED EQUIPMENT**

UCOR projects must ensure that RCRA-contaminated items that are going to be released to the public or used in a non-RCRA contaminated process or area are decontaminated to a clean debris surface per 40 CFR 268.45. The RCRA decontamination of items for reuse or release to the public must be documented by use of the RCRA - Contaminated Equipment Release Form (Form-2390). Equipment that has been used in a RCRA-contaminated area may be reused in another RCRA-contaminated area without being decontaminated.

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## 17. TOXIC SUBSTANCES CONTROL ACT AND PCB WASTE

TSCA was enacted in 1976 to address the manufacture, processing, and distribution in commerce, use, and disposal of chemical substances and mixtures that present an unreasonable risk of injury to human health or the environment. TSCA mandated that EPA identify and control chemical substances manufactured, processed, distributed in commerce, and used within the United States. EPA imposes strict information gathering requirements on both new and existing chemical substances, including PCBs.

UCOR projects and subcontractor personnel that generate and handle PCB waste shall complete the Waste Information Form (Form-2396) and the Waste Stream Worksheet (Form-2395) according to PROC-WM-2020, *Pre-Job Planning for Waste Generating Activities*, prior to generating the waste. Generated, containerized waste shall have UCN-2109 forms prepared according to PROC-WM-2022, *Preparation of the UCN-2109 Data Package*, including containerized waste that will be sent to the EMWMF. Copies of Certificates of Disposal and signed manifests shall be submitted to the appropriate waste tracking system to close the item out of the system. Bulking sheets, lab pack forms, bills of lading, manifests, or other pertinent waste tracking records shall be maintained on the project site in auditable form. PCB spill reports shall be completed by projects and subcontract personnel and shall be documented using the Polychlorinated Biphenyl (PCB) Spill Cleanup Record for Low-Concentration Spills form (Form-2947) or the Polychlorinated Biphenyl (PCB) Spill Cleanup Record for High-Concentration Spills form (Form-2948). Generation and storage of PCB waste shall be managed in accordance with the requirements listed for temporary storage of PCBs in Appendix L and one year storage in Appendix M of this PD (storage time limit does not apply to onsite CERCLA actions). Appendix E-3 provides an example of a PCB M<sub>L</sub> mark to be used on waste containers, at storage areas, entrances to storage areas, and PCB-contaminated items.

UCOR projects must ensure that items that are PCB-contaminated that are going to be released to the public or used in a non PCB-contaminated process area are PCB decontaminated. The PCB decontamination of items for reuse or release to the public must be documented by use of the PCB – Contaminated Equipment Release Form (Form-2239). Appendix N of this PD provides guidelines for decontaminating equipment contaminated with PCB oil, PCB remediation waste, or PCB bulk product waste. Items that have been PCB-contaminated can be reused in a PCB-contaminated environment without being decontaminated. All items must be labeled with a PCB M<sub>L</sub> or M<sub>S</sub> mark with the words “FOR REUSE” until PCB-decontaminated.

Open burning of PCBs is prohibited by the TSCA regulations. Metals that have been coated with paint that is PCB-contaminated must have the paint removed prior to torch cutting. The paint must be removed six inches on each side of where the cut is going to be made. The area where the paint is removed must be able to pass the National Association of Corrosion Engineers standard before the cut can be made.

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**18. STATE OF TENNESSEE OVERSIGHT AGREEMENT**

DOE has entered into a Tennessee Oversight Agreement (TOA) with the state of Tennessee that provides for independent environmental oversight and monitoring of DOE activities on the ORR by the state. The APM or designee (often the EC&P Lead) shall coordinate access for state TOA representatives into project facilities and shall make prior verbal and written notifications of such visits to DOE and UCOR management, when previously announced by the TOA representative. UCOR projects and subcontractors shall allow access for state TOA representatives into UCOR and subcontractor-operated facilities and shall make prior verbal and written notifications of such visits to the APM or SCC or STR, to the extent that such visits are previously announced by the TOA representative. Requests from the state TOA personnel for documents, subcontracted-facilities monitoring data, and other relevant information shall be coordinated through the TOA coordinator and project’s EC&P personnel or subcontractor, as appropriate.

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## 19. POLLUTION PREVENTION AND AFFIRMATIVE PROCUREMENT

UCOR and subcontractor personnel shall implement pollution prevention measures and techniques and reporting requirements on all UCOR projects. The requirements for pollution prevention are specified in the Pollution Prevention Act of 1990 <42 USC 13101–13109>, the Tennessee Hazardous Waste Reduction Act of 1990 <TCA 68-46-306A et seq.>, and Executive Order 13423, *Strengthening Federal Environmental, Energy and Transportation Management* (January 2007) and Executive Order 13514, *Federal Leadership in Environmental, Energy and Economic Performance* (October 2009). Cost-effective pollution prevention practices shall be incorporated into project activities by UCOR and subcontractor personnel. When practicable, waste generation shall be minimized and environmentally friendly materials shall be used. Where practicable in office areas, cardboard, paper, plastics, alkaline batteries (see Appendix U for alkaline battery management criteria), and aluminum cans shall be recycled. The procurement and use of recycled and environmentally preferable products in lieu of new products made from virgin materials shall be required unless items made with recovered materials are not available competitively at a reasonable cost or within a reasonable time frame or unless items do not meet performance requirements. These pollution prevention practices protect the environment and worker safety, avoid using valuable landfill space, and avoid additional material processing that can contribute to GHG production and potentially impact climate change. Reports describing pollution prevention accomplishments shall be submitted via the SCC or STR for subcontractors providing metrics or data to demonstrate the quantities of recycled products used or materials recycled to avoid disposal.

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**20. ENVIRONMENTAL RADIATION PROTECTION**

UCOR and subcontractor personnel shall operate in accordance with PPD-EC-3192, *Environmental Radiation Protection Program for URS | CH2M Oak Ridge LLC*, and PROC-RP-4001, *ALARA Program*. The APM, or designee, shall incorporate the objectives of maintaining radiological releases and exposures to levels that are as low as reasonably achievable (ALARA) into project work planning documents. Doses to the public from radioactive materials must be maintained as low as reasonably achievable below the primary dose limits contained in federal regulations and state permits. The ALARA process requires judgment with respect to what is reasonably achievable. Factors that relate to societal, technological, economic, and other public policy considerations shall be included in making such judgments. Many UCOR projects and activities do not have the potential for radiological impacts on the public and environment that are distinguishable from background. UCOR and subcontractor projects and activities that have projected dose impacts to members of the public that are less than ten percent of the applicable regulatory dose standard do not require application of an ALARA evaluation process. However, ALARA considerations should always be included in project and activity planning decisions affecting potential doses to the public or where there is a potential for significant environmental radiological impacts.

The EC&P Program shall provide input and oversight to project work execution documents that will incorporate ALARA principles and goals.

UCOR and subcontractor personnel shall implement a documented environmental ALARA evaluation process to identify radiological protection goals and considerations according to PPD-EC-3192, *Environmental Radiation Protection Program for URS | CH2M Oak Ridge LLC*, and DOE Order 458.1, *Attachment 1, Contractor Requirements Document*.

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## **21. ENVIRONMENTAL COMPLIANCE AND PROTECTION MANAGEMENT AND SELF-ASSESSMENTS AND SUBCONTRACTOR OVERSIGHT**

The assessment and oversight of activities that apply to all UCOR projects and functional organizations are completed by conducting management or self-assessments and independent assessments. Management or self-assessments are conducted by the organization or on behalf of the organization manager. Independent assessments are conducted by individuals or assessors independent of the project or subcontractor being assessed, to validate the organization's internal assessment efforts. Such assessments may be performed by UCOR projects as a part of subcontractor oversight. For the purposes of this EC&P PD, EC&P oversight assessments include UCOR independent assessments, management or self-assessments, and subcontractor self-assessment programs.

### **21.1 EC&P MANAGEMENT AND SELF-ASSESSMENT PROGRAMS**

EC&P management or self-assessments shall be performed by UCOR projects for self-performed work and by subcontractors for work performed by them and their lower-tier subcontractor. Such assessments shall be performed on a regularly scheduled basis. Reports for subcontractor-performed management assessments shall be issued per the subcontractor's procedures. UCOR projects should also conduct assessments of subcontractor self-assessments as part of subcontractor oversight. Assessments performed by UCOR as a part of subcontract oversight do not take the place of required subcontractor self-assessments.

#### **21.1.1 Management Assessment Schedule**

All projects, whether performed by UCOR or a subcontractor, shall maintain a schedule for the performance of EC&P management assessments or cite the management assessment plan or quality assurance plan where it is included. The schedule shall be based on a graded approach according to the sensitivity and level of environmental risks, applicable EC&P requirements, regulatory permits, and other factors relevant to the given scope of work and physical location of the work activity.

#### **21.1.2 Management and Self-Assessment Requirements and Scope**

The document (e.g., assessment plan, quality assurance plan) that describes the process and schedule for performing the EC&P management or self-assessments shall include a description of the scope of the areas to be assessed. To the extent feasible, this scope should be based on the Line of Inquiry (LOI) presented in Appendix O and/or another documented LOI based on the scope of the assessment, and shall include identification of the specific records to be reviewed, inspections to be performed, and checklists to be used for the assessment.

Project Managers and subcontractor management should be informed prior to performance of scheduled management or self-assessments.

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### **21.1.3 Management and Self-Assessment Reports**

UCOR management or self-assessments reports will be prepared in accordance with PROC-PQ-1420, *Management and Self-Assessment*. For UCOR issues, the Corrective Action Management System will be used to track all project EC&P management assessment findings, observations, and non-conformances.

Subcontractors shall implement and maintain a system for tracking corrective actions identified during their self-assessments as required by their subcontract. Copies of closure evidence or other documentation prepared in response to subcontractor self-assessments may be requested by the SCC or STR.

## **21.2 EC&P INDEPENDENT ASSESSMENTS**

### **21.2.1 Schedule for Independent Assessment Programs**

UCOR independent assessments will be scheduled and performed in accordance with PROC-PQ-1401, *Independent Assessment*.

### **21.2.2 Assessment Requirements and Scope**

To the extent feasible, UCOR EC&P independent assessments shall incorporate the process and scope for oversight assessments described in Appendix O, Section B.

Project Managers and subcontractor management will be informed prior to performance of scheduled UCOR independent assessments.

### **21.2.3 Assessment Reports**

Independent assessment report format will be in accordance with PROC-PQ-1401.

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## 22. REFERENCES

- DOE Order 436.1. *Departmental Sustainability, Attachment 1, Contractor Requirements Document*, 2011, U.S. Department of Energy, Washington, D.C.
- DOE Order 458.1. *Radiation Protection of the Public and the Environment, Attachment 1, Contractor Requirements Document*, 2011, U.S. Department of Energy, Washington, D.C.
- DOE Order 5400.5. *Radiation Protection of the Public and the Environment*, 1993, U.S. Department of Energy, Washington, D.C.
- Executive Order 13423. “Strengthening Federal Environmental, Energy and Transportation Management”, Vol. 72, No. 17, 2007, *Federal Register*, Washington, D.C.
- Executive Order 13514. “Federal Leadership in Environmental, Energy and Economic Performance”, Vol. 74, No. 194, 2009, *Federal Register*, Washington, D.C.
- International Organization for Standardization, ISO 14001:2004(E), *Environmental management systems—Requirements with guidance for use*, Switzerland.
- DOE/OR-1014. *Federal Facility Agreement for the Oak Ridge Reservation*, 1992, U.S. Department of Energy, U.S. Environmental Protection Agency Region 4, and Tennessee Department of Environment and Conservation.
- DOE/OR-1066. *Environmental Monitoring Plan for the Oak Ridge Reservation*, 2003, U.S. Department of Energy, Oak Ridge Operations Office.
- DOE/OR-2227/R4. *Environmental Monitoring Plan for the Oak Ridge Reservation*, 2011, U.S. Department of Energy, Oak Ridge Operations Office.
- DOE/ORO-2085. *Cultural Resources Management Plan DOE Oak Ridge Reservation, Anderson and Roane Counties, Tennessee*, 2001, U.S. Department of Energy, Oak Ridge Operations Office.
- DOE/ORO/2196. *Compliance Plan: National Emission Standards for Hazardous Air Pollutants for Airborne Radionuclides on the Oak Ridge Reservation, Oak Ridge, Tennessee*, 2005, U.S. Department of Energy, Oak Ridge Operations Office.
- UCOR-4870. *Spill Prevention, Control, and Countermeasure Plan for the East Tennessee Technology Park and the Environmental Management Waste Management Facility. Oak Ridge, Tennessee*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.
- UCOR-4255. *East Tennessee Technology Park Storm Water Pollution Prevention Program Baseline Document*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.
- UCOR-4350. *URS | CH2M Oak Ridge LLC (UCOR) Training Requirements Matrix (TRM), Oak Ridge, Tennessee*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

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UCOR-5079. *Spill Prevention, Control, and Countermeasure Plan for the Oak Ridge Reservation Landfills, Oak Ridge, Tennessee*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

POL-UCOR-007. *Environmental Management and Protection*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PPD-EC-3192. *Environmental Radiation Protection Program for URS | CH2M Oak Ridge LLC*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PPD-EC-3193. *National Historic Preservation Act Program Description for URS | CH2M Oak Ridge LLC*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PPD-EC-3253. *National Environmental Policy Act Program Description for URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PPD-EH-1400. *Integrated Safety Management System Program Description*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PPD-EH-1745. *Worker Safety and Health Program*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PPD-EP-3023. *Emergency Management Organization Program Description*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PPD-RP-4000. *Radiation Protection Program for URS | CH2M Oak Ridge LLC*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PPD-WM-2400. *UCOR Waste Management Program Plan*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-CN-2008. *Employee Concerns Program*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-EC-3014. *SWMU/AOC Reporting Under the ORR Hazardous Waste Corrective Action Document*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-FO-515. *Facility Management*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-FO-1004. *Excavation/Penetration*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-FS-1001. *Integrated Work Control Program*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-OS-1001. *Records Management, Including Document Control*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

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PROC-PQ-1401. *Independent Assessment*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-PQ-1420. *Management and Self-Assessment*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-RP-4001. *ALARA Program*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-WM-2010. *Waste Container Management*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-WM-2013. *Certification of Waste for Disposal at the Nevada National Security Site*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-WM-2020. *Pre-Job Planning for Waste Generating Activities*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-WM-2021. *UCOR Waste Management Areas*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-WM-2022. *Preparation of the UCN-2109 Data Package*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-WM-2024. *Identifying and Tracking Waste Containers for Shipment to Non-UCOR Facilities*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

PROC-WM-2026. *Compiling, Distributing, and Managing Waste Management Program Records*, latest revision, URS | CH2M Oak Ridge LLC, Oak Ridge, Tennessee.

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>1. INTRODUCTION</b>		
		1.1 ENVIRONMENTAL COMPLIANCE AND PROTECTION PROGRAM DESCRIPTION OBJECTIVE	Applies.	Applies.
		1.2 POLICY STATEMENT	<ul style="list-style-type: none"> <li>– Applies;</li> <li>– UCOR Zero Accident Performance Policy;</li> <li>– CHT-UCOR-100, <i>URS / CH2M Oak Ridge LLC Charter</i>;</li> <li>– POL-UCOR-007, <i>Environmental Management and Protection</i>.</li> </ul>	Applies.
		1.3 EMPLOYEE EMPOWERMENT	<ul style="list-style-type: none"> <li>– Applies;</li> <li>– PROC-CN-2008, <i>Employee Concerns Program</i>;</li> <li>– DOE Employee Concerns Program Hotline;</li> <li>– Stop Work Authorization, PPD-EH-1400.</li> </ul>	Applies.

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NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		1.4 INTEGRATED SAFETY MANAGEMENT SYSTEM / ENVIRONMENTAL MANAGEMENT SYSTEM  APPENDIX B - INTEGRATING ENVIRONMENTAL COMPLIANCE AND PROTECTION FUNCTIONS INTO A PROJECT'S WORK ACTIVITIES	<ul style="list-style-type: none"> <li>– Applies;</li> <li>– DOE Order 436.1, <i>Departmental Sustainability, Attachment 1, Contractor Requirements Document</i>;</li> <li>– PPD-EH-1400, <i>Integrated Safety Management System Program Description</i>;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<p>Applies.</p> <p>Comply with listed requirements, as applicable to Scope of Work.</p>
		<b>SECTION 1 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>2. ROLES AND RESPONSIBILITIES</b>  APPENDIX B - INTEGRATING ENVIRONMENTAL COMPLIANCE AND PROTECTION FUNCTIONS INTO A PROJECT'S WORK ACTIVITIES	<ul style="list-style-type: none"> <li>– Compiles with PPD-EH-1400, <i>Integrated Safety Management System Program Description.</i></li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	Comply with listed requirements, as applicable to Scope of Work.
		2.1 THE MANAGEMENT TEAM	Applies.	Conduct work under subcontractor's management structure provided that subcontractor's work commitments and performance meet subcontractor responsibilities.
		2.2 AREA PROJECT MANAGERS	Applies.	NA
		2.3 FUNCTIONAL MANAGEMENT	Applies.	NA
		2.4 PROJECT MANAGEMENT	Applies.	NA
		2.5 FACILITY MANAGERS	<ul style="list-style-type: none"> <li>– Applies;</li> <li>– PROC-FO-515, <i>Facility Management.</i></li> </ul>	Applies.
		2.6 ENVIRONMENT, SAFETY AND HEALTH PROGRAMS	Applies.	NA
		2.7 THE EMPOWERED WORKER	Applies.	Applies.
		2.8 PROJECT ESH OPERATIONS MANAGER	Applies.	NA
		2.9 SUBCONTRACT COORDINATOR/SUBCONTRACT TECHNICAL REPRESENTATIVE	Applies.	Applies.

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		2.10 SUBCONTRACT ADMINISTRATOR	Applies.	Applies.
		2.11 PROJECT SAFETY REPRESENTATIVE	Applies.	Applies.
		2.12 ENVIRONMENTAL COMPLIANCE AND PROTECTION LEAD	Applies.	NA
		2.13 SUBCONTRACTOR PERSONNEL	NA	Applies; – Use qualified EC&P personnel hired by subcontractor or provided contractually by UCOR for oversight of subcontractor’s activities.
		2.14 ENVIRONMENTAL STEWARDSHIP ORGANIZATION	Applies.	NA
		<b>SECTION 2 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>3. REPORTING AND RECORD KEEPING</b>		
		3.1 INCIDENT REPORTING AND NOTIFICATIONS	Applies; – PROC-EC-3003, <i>Identification and Reporting of Environmental Noncompliances</i> .	– Immediately (but no more than one hour following an incident) notify your supervisor, facility manager, or the PSS/LSS of any environmental releases, noncompliances, or any events that may be a violation of a regulatory requirement; – In addition, any release above legal limits shall be reported to the UCOR EC&P Lead through the project SCC or STR within 30 minutes of the incident; – Provide information required for reporting under 43 CFR Part 11.20, Natural Resource Damage Assessments; Comply with requirements in: – 40 CFR Part 116, Designation of Hazardous Substances; – 40 CFR Part 117, Determination of Reportable Quantities for Hazardous Substances; – 40 CFR Part 302, Designation, Reportable Quantities, and Notification; – 40 CFR Part 355, Emergency Planning and Notification; – TCA 68-216-101 et seq., TN Oil Spill Cleanup and Environmental Preservation Act.

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		3.2 SITE-WIDE PERMITS AND REPORTS	Submit information for site-wide reports, as applicable (refer to subsections below).	<ul style="list-style-type: none"> <li>– Submit information for site-wide reports, as applicable<sup>3</sup>;</li> <li>– Comply with 40 CFR Series (refer to subsections below).</li> </ul>
		3.2.1 RCRA Annual Report	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>;</li> <li>– PPD-WM-2400, <i>UCOR Waste Management Program Plan</i>.</li> </ul>	<ul style="list-style-type: none"> <li>– Submit by January 10<sup>th</sup> annually, information necessary to comply with TR 0400-12-01-.03;</li> <li>– Conduct field verification of the appropriate waste tracking system inventory;</li> <li>– Submit UCN-2109 forms, Waste Item Description, or other pertinent information such as shipping documents (e.g., manifests, bills of lading) for the appropriate waste tracking system input;</li> <li>– Comply with 40 CFR Parts 260-264, RCRA Hazardous Waste Requirements;</li> <li>– Comply with PPD-WM-2400, <i>UCOR Waste Management Program Plan</i>;</li> <li>– Comply with PROC-WM-2013, <i>Certification of Waste for Disposal at the Nevada National Security Site</i>;</li> <li>– Comply with PROC-WM-2024, <i>Identifying and Tracking Waste Containers for Shipment to Non-UCOR Facilities</i>;</li> <li>– Comply with PROC-WM-2026, <i>Compiling, Distributing, and Managing Waste Management Program Records</i>.</li> </ul>

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		3.2.2 RCRA Treatability Study Report	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i> .	<ul style="list-style-type: none"> <li>– Submit information/documentation required to comply with TR 0400-12-01-.02(1)(d)(5);</li> <li>– Treatability studies conducted during the year shall be documented and submitted with information requested by January 10<sup>th</sup> annually;</li> <li>– All planned studies conducted during the year shall be reported.</li> </ul>

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		3.2.3 TSCA PCB Annual Document Log	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i></li> <li>– PPD-WM-2400, <i>UCOR Waste Management Program Plan.</i></li> </ul>	<ul style="list-style-type: none"> <li>– Submit by January 10<sup>th</sup> annually and when work is completed, information required to comply with PCB annual reporting under 40 CFR Part 761;</li> <li>– Conduct field verification of the appropriate waste tracking system inventory;</li> <li>– Submit UCN-2109 forms, Waste Item Description, or other pertinent information such as shipping documents (e.g., manifests, bills of lading) for the appropriate waste tracking system input;</li> <li>– Comply with 40 CFR Part 761, PCB Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions;</li> <li>– Comply with PPD-WM-2400, <i>UCOR Waste Management Program Plan</i>;</li> <li>– Comply with PROC-WM-2013, <i>Certification of Waste for Disposal at the Nevada National Security Site</i>;</li> <li>– Comply with PROC-WM-2024, <i>Identifying and Tracking Waste Containers for Shipment to Non-UCOR Facilities</i>;</li> <li>– Comply with PROC-WM-2026, <i>Compiling, Distributing, and Managing Waste Management Program Records.</i></li> </ul>

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		3.2.4 EPCRA Sections 311 and 312 Reports	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	Comply with requirements in: – 42 USC 11001-11050, Emergency Planning and Community Right-to-Know Act; – EPCRA Sections 311 and 312; – 40 CFR Part 370, Hazardous Chemical Reporting: Community Right-to-Know; – 40 CFR Part 372, Toxic Chemical Release Reporting: Community Right-to-Know; – Submit hazardous materials inventory data each month.
		3.2.5 EPCRA Section 313 Report	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	– Submit by March 1 <sup>st</sup> annually and when work is completed, information on the quantity of toxic chemicals being manufactured, processed or otherwise used, and waste management activities associated with toxic chemicals for inclusion in annual site-wide EPCRA Section 313 Report (NOTE: After the March 1 <sup>st</sup> submittal, additional information may be requested to be submitted to UCOR by May 1 <sup>st</sup> in order to meet the regulatory submittal date of July 1 <sup>st</sup> ); Comply with requirements in: – 40 CFR Part 370, Hazardous Chemical Reporting: Community Right-to-Know; – 40 CFR Part 372, Toxic Chemical Release Reporting: Community Right-to-Know; – 42 USC 11001-11050, Emergency Planning and Community Right-to-Know Act (Comply with EPCRA Section 313).

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		3.2.6 DOE Annual Site Environmental Report	– DOE Order 231.1B, <i>Environment, Safety and Health Reporting, Attachment 1, Contractor Requirements Document.</i>	Submit information to the project SCC or STR for use in ASER, as requested by UCOR EC&P Lead.
		3.2.7 Radionuclide NESHAP Annual Report	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	<ul style="list-style-type: none"> <li>– Submit by March 1<sup>st</sup> annually or when work is completed, radionuclide emission data and estimates (for previous CY) for all point sources using EPA approved method(s);</li> <li>– Comply with 40 CFR Part 61, Subpart H, Emission Standards for Radionuclides;</li> <li>– Comply with CAA (42 USC 7401 et seq.).</li> </ul>
		3.2.8 Asbestos Annual Inventory Report	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	<ul style="list-style-type: none"> <li>– Submit by December 1<sup>st</sup> annually an estimate of the amount of asbestos to be abated from minor asbestos renovation projects during the coming calendar year; do not include asbestos abatements under CERCLA;</li> <li>– Comply with 40 CFR Part 61, Subpart M, National Emission Standards for Asbestos;</li> <li>– Comply with CAA (42 USC 7401 et seq.).</li> </ul>

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		3.2.9 Inventory of Federal Agency Hazardous Waste Activities (RCRA Section 3016 Report)	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	– Comply with RCRA Section 3016; – As requested, submit by January of every even numbered year information to complete an inventory of Federal Agency Hazardous Waste Activities (information may include environmental monitoring data summaries, site characterization, response actions, number of tanks, number of container storage facilities, etc.).
		3.2.10 DOE Oak Ridge Reservation Environmental Monitoring Plans	– PPD-EC-3194, Balance of Environmental Regulations Program Description.	Applies.
		3.2.11 Pollution Prevention Reports  APPENDIX P - POLLUTION PREVENTION AND WASTE MINIMIZATION REQUIREMENTS	– Annual Hazardous Waste Reduction Progress Report – Comply with listed requirements, as applicable to Scope of Work.	– Submit information to the project SCC or STR for use in the following reports as requested by the UCOR EC&P Lead or the Pollution Prevention Coordinator: (1) Annual Hazardous Waste Reduction Progress Report; and (2) Environmentally Preferable Purchasing data and information. – Comply with listed requirements, as applicable to Scope of Work.

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		3.2.12 Annual Solid Waste Management Units Update Report	– PROC-EC-3014, <i>SWMU/AOC Reporting Under the ORR Hazardous Waste Corrective Action Document.</i>	As requested, submit by December of each year information needed to update the solid waste management units/areas of concern listed in the Hazardous and Solid Waste Amendments Corrective Action Conditions document (TNHW-164).
		<b>SECTION 3 COMMENTS:</b>		

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>4. HAZARD ASSESSMENT AND CONTROL</b>	<ul style="list-style-type: none"> <li>– PPD-EH-1400, <i>Integrated Safety Management System Program Description</i>;</li> <li>– PROC-FS-1001, <i>Integrated Work Control Program</i>.</li> </ul>	<ul style="list-style-type: none"> <li>– PROC-FS-1001, <i>Integrated Work Control Program</i>;</li> <li>– Prepare Job Hazard Analysis (JHA), prior to start of work (with participation from employees that will be performing the job tasks);</li> <li>– Complete pre-job hazard briefing with employees prior to start of work;</li> <li>– Comply with work package documentation to define work and implement necessary environmental controls to mitigate significant EC&amp;P aspects.</li> </ul>
		<b>SECTION 4 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

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NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>5. TRAINING AND AWARENESS</b>	<ul style="list-style-type: none"> <li>– PROC-TC-0702, <i>Training Program</i>;</li> <li>– PROC-TC-0710, <i>Training Position Descriptions and Position Assignment Forms</i>;</li> <li>– UCOR-4350, <i>URS   CH2M Oak Ridge LLC (UCOR) Training Requirements Matrix (TRM)</i></li> </ul>	<ul style="list-style-type: none"> <li>– Define all training requirements for personnel, as applicable, commensurate with Scope of Work;</li> <li>– Maintain all training information on-site and make it readily available for review;</li> <li>– Provide and complete training commensurate with job responsibilities;</li> <li>– Provide and complete Park Worker Training or General Employee Training.</li> </ul>
		<b>SECTION 5 COMMENTS:</b>		UCOR-4350, URS   CH2M Oak Ridge LLC (UCOR) Training Requirements Matrix (TRM), can be used as a guide to identify required training.

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>6. EXCAVATION AND PENETRATION WORK PERMITS</b>	<ul style="list-style-type: none"> <li>- PROC-FO-1004, <i>Excavation/Penetration</i>;</li> <li>- Form-147, Excavation Permit;</li> <li>- Form-3129, Penetration Permit</li> <li>- 29 CFR Part 1926, Subpart P, Excavations.</li> </ul>	<ul style="list-style-type: none"> <li>- Comply with PROC-FO-1004, <i>Excavation/Penetration</i>;</li> <li>- Evaluate sensitive natural, cultural, and historic resources;</li> <li>- Evaluate potential for impacts to SWMUs, or CERCLA AOCs;</li> <li>- Have all Excavation/Penetration Permits approved by UCOR;</li> <li>- Comply with 29 CFR Part 1926, Subpart P, Excavations;</li> <li>- Provide adequate sediment control to prevent disturbed sediments from being transported to waters of the state by storm water runoff.</li> </ul>
		<b>SECTION 6 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>7. EMERGENCY RESPONSE AND REPORTING</b>	<ul style="list-style-type: none"> <li>– DOE ORR Emergency Plan ETPP – Volume 3;</li> <li>– PPD-EP-3023, <i>Emergency Management Organization Program Description</i>;</li> <li>– PROC-EC-3003, <i>Identification and Reporting of Environmental Noncompliances</i>;</li> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>.</li> </ul>	<ul style="list-style-type: none"> <li>– Comply with DOE ORR Emergency Plan ETPP – Volume 3;</li> <li>– Comply with PPD-EP-3023, <i>Emergency Management Organization Program Description</i>;</li> <li>– Contact and direct requests for emergency response to the PSS/LSS;</li> <li>– Report emergencies or requests for response through the project SCC or STR;</li> <li>– Report unidentified or unanticipated substances in a release to the PSS/LSS;</li> <li>– Shut down affected system(s) only if it can be done safely;</li> <li>– Comply with 40 CFR Part 302, Designation, Reportable Quantities (RQ), and Notification;</li> <li>– Comply with 40 CFR Part 355, Emergency Planning and Notification;</li> <li>– Assist PSS/LSS in reporting to appropriate regulatory agencies (National Response Center, EPA, DOE, TDEC, City of Oak Ridge, Local Emergency Planning Committees, etc.) any spills that may impact the environment and/or that may have associated reporting requirements.</li> </ul>
		<b>SECTION 7 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETPP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative.’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>8. COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT</b>	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– CERCLA (42 USC 9601);</li> <li>– 40 CFR Part 300, National Oil and Hazardous Substances Pollution Contingency Plan;</li> <li>– DOE/OR/01-1077, <i>Annotated Outlines for Documents Required by Federal Facility Agreement (FFA) and CERCLA for ORR Sites;</i></li> <li>– OR FFA;</li> <li>– CERCLA ARARs applicable to the work activity or incident at the site.</li> </ul>
		<b>SECTION 8 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>9. NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE</b>	<ul style="list-style-type: none"> <li>– PPD-EC-3253, <i>National Environmental Policy Act Program Description for URS   CH2M Oak Ridge LLC, Oak Ridge, Tennessee;</i></li> <li>– Form-539, Environmental Compliance and Protection Review Checklist.</li> </ul>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– 10 CFR Part 1021, DOE NEPA Implementing Procedures;</li> <li>– NEPA (42 USC 4321 et seq.);</li> <li>– Submit NEPA checklist and documentation for new projects as requested by UCOR.</li> </ul>
		<b>SECTION 9 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>10. NATIONAL HISTORIC PRESERVATION ACT COMPLIANCE</b>	– PPD-EC-3193, <i>National Historic Preservation Act Program Description for URS   CH2M Oak Ridge LLC.</i>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– National Historic Preservation Act (NHPA) of 1966 (PL89-665);</li> <li>– 36 CFR Part 60, National Register Of Historic Places;</li> <li>– 36 CFR Part 68, The Secretary Of The Interior's Standards For The Treatment Of Historic Properties;</li> <li>– 36 CFR Part 800, Protection Of Historic Properties;</li> <li>– 43 CFR 7, Protection Of Archaeological Resources;</li> <li>– Archaeological Resources Protection Act (16 USC 470ii);</li> <li>– 36 CFR 296, Archaeological Resources Protection Act;</li> <li>– Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.);</li> <li>– 43 CFR 10, Native American Graves Protection and Repatriation Act;</li> <li>– Archeological and Historic Preservation Act of 1974 (PL 93-291).</li> </ul>
		<b>SECTION 10 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>11. OTHER SENSITIVE RESOURCES</b>	Applies.	Applies.
		11.1 FLOODPLAINS/WETLANDS IMPACTED BY PROJECT ACTIVITIES	<ul style="list-style-type: none"> <li>– PPD-EC-3253, <i>National Environmental Policy Act Program Description for URS / CH2M Oak Ridge LLC, Oak Ridge, Tennessee;</i></li> <li>– Form-539, Environmental Compliance and Protection Review Checklist.</li> </ul>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– 10 CFR Part 1022, DOE Compliance with Floodplain/Wetlands Review Requirements;</li> <li>– Tennessee Division of Water Pollution Control Aquatic Resource Alteration Permit (ARAP) (Form CN-0191), as applicable;</li> <li>– 33 CFR Part 330, Navigation and Navigable Waters; Nationwide Permit Program, as applicable;</li> <li>– Submit permit applications, notifications, or NEPA documentation as applicable.</li> </ul>

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NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		11.2 THREATENED/ENDANGERED SPECIES AND NATIVE BIOTA	<ul style="list-style-type: none"> <li>– Threatened and Endangered Species Act;</li> <li>– Form-539, Environmental Compliance and Protection Review Checklist.</li> </ul>	<p>Comply with the requirements in:</p> <ul style="list-style-type: none"> <li>– 16 USC 1531 et seq. Endangered Species Act of 1973;</li> <li>– 16 USC 703 et seq. Migratory Bird Treaty Act of 1918;</li> <li>– 16 USC 668 et seq. The Bald and Golden Eagle Protection Act of 1940;</li> <li>– 50 CFR Part 17, Endangered and Threatened Wildlife and Plants;</li> <li>– 50 CFR Part 222, Endangered Fish or Wildlife;</li> <li>– TR 1660-01 Wildlife Resources.</li> </ul> <p>Comply with the following:</p> <ul style="list-style-type: none"> <li>– Take precautions to ensure that protected plants or animals will not be adversely affected by project activities;</li> <li>– Minimize impacts to wildlife habitat from project activities.</li> </ul>
		<b>SECTION 11 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

<b>Applicability</b>		<b>Section:</b>	<b>UCOR Responsibility<sup>1</sup></b>	<b>Subcontractor Responsibility<sup>2, 3</sup></b>
<b>Yes</b>	<b>No</b>			
		<b>12. UNEXPECTED HISTORIC, CULTURAL OR ECOLOGICAL SITE CONDITIONS</b>	– Notify EC&P Lead of any surface, subsurface, or latent physical condition encountered during work that is different from expected conditions.	– Notify the UCOR EC&P Lead through the project SCC or STR of any surface, subsurface, or latent physical condition encountered during work that is different from expected conditions.
		<b>SECTION 12 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

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NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>13. HAZARDOUS MATERIALS MANAGEMENT</b>  APPENDIX T - ENVIRONMENTAL SIGNAGE/POSTING REQUIREMENTS AND BEST PRACTICES	<ul style="list-style-type: none"> <li>– Practice proper use and storage of hazardous materials;</li> <li>– Prepare monthly inventories of hazardous materials, per the UCOR <i>Worker Safety and Health Program (WSHP)</i>, PPD-EH-1745;</li> <li>– Use chemicals (e.g., pesticides and herbicides) in accordance with manufacturers’ labeling;</li> <li>– Apply UCOR Best Management Practices (BMP) when utilizing chemicals outdoors;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– 7 USC 136 et seq., Environmental Pesticide Control Act;</li> <li>– TCA 43-8-101 et seq., TN Insecticide, Fungicide, and Rodenticide Act;</li> <li>– 40 CFR Part 152.175, Pesticides Classified For Restricted Use;</li> <li>– 40 CFR Part 171, Certification of Pesticide Applicators;</li> <li>– TR 0080-6-16, Regulations Governing Use of Restricted Use of Pesticides.</li> </ul> Comply with the following: <ul style="list-style-type: none"> <li>– Practice proper use and storage of hazardous materials;</li> <li>– Prepare monthly inventories of hazardous materials, per the UCOR Safety and Health Program Description;</li> <li>– Use chemicals (e.g., pesticides and herbicides) in accordance with manufacturers’ labeling;</li> <li>– Apply BMPs when utilizing chemicals outdoors;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		<b>SECTION 13 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>14. CLEAN AIR ACT</b>	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	Comply with the requirements in: – CAA (42 USC 7401 et seq.); – TN Air Quality Act (TCA 68-201-101 et seq.) and TR 1200-3; – 40 CFR Part 790, Procedures Governing Testing Consent Agreements And Test Rule; – Applicable sections of DOE Order 458.1, <i>Attachment 1, Contractor Requirements Document.</i>
		14.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS COMPLIANCE	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	Comply with the requirements in: – 40 CFR Part 61, NESHAPs; – Applicable sections of DOE Order 458.1, <i>Attachment 1, Contractor Requirements Document.</i>

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NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		14.1.1 RADIONUCLIDE NESHAP  APPENDIX C-1 - RADIONUCLIDE NESHAP REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>;</li> <li>– Maintain ambient air monitoring program for radionuclide fugitive emissions;</li> <li>– Maintain project-specific system of ambient air monitors, as applicable;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<p>Comply with the requirements in:</p> <ul style="list-style-type: none"> <li>– 40 CFR Part 61, Subparts H and I;</li> <li>– Compliance Plan – NESHAP for Airborne Radionuclides on the ORR, March 2005 (refer to references); submit notification of new emissions source;</li> <li>– DOE Order 458.1, <i>Attachment 1, Contractor Requirements Document</i>;</li> <li>– Ensure that the required dose evaluation is performed to verify that the unit shall be a minor source and to ensure that the source is included in the radiological NESHAP annual report;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>

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NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		14.1.2 ASBESTOS NESHAP  APPENDIX C-2 - ASBESTOS NESHAP REQUIREMENTS  APPENDIX R - WASTE GENERATOR SHIPPING REQUIREMENTS  APPENDIX T - ENVIRONMENTAL SIGNAGE/POSTING REQUIREMENTS AND BEST PRACTICES	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>;</li> <li>– PROC-IH-5177, <i>Asbestos and Other Fibrous Materials</i>;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<p>Comply with the requirements in:</p> <ul style="list-style-type: none"> <li>– 40 CFR Part 61, Subpart M, National Emissions Standards for Asbestos;</li> <li>– TR 1200-3-11, Hazardous Air Contaminants;</li> <li>– Submit notification of planned asbestos removal activities if required by TR 1200-3-11-.02(2)(d)(iv)(III);</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		14.2 OZONE-DEPLETING SUBSTANCES  APPENDIX D - OZONE-DEPLETING SUBSTANCES REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<p>Comply with the requirements in:</p> <ul style="list-style-type: none"> <li>– 40 CFR Part 82, Protection of Stratospheric Ozone;</li> <li>– PROC-ET-3014, <i>Stratospheric Ozone Protection</i>;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		14.3 CONSTRUCTION AND OPERATING PERMIT COMPLIANCE	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>.</li> </ul>	<p>Comply with the requirements in:</p> <ul style="list-style-type: none"> <li>– CAA Title V requirements;</li> <li>– TN Air Quality Act (TCA 68-201-101 et seq.);</li> <li>– Submit permit applications of new or modified air pollution sources as required;</li> <li>– TR 1200-3 Tennessee Air Quality Act - Tennessee Code Annotated, Section 53-3408, et seq. (Seek air operating permit from State for all major air pollutant sources.).</li> </ul>

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NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative.’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		14.4 REGULATION OF FUELS AND FUEL ADDITIVES	Comply with the requirements in: – 40 CFR Part 80, Regulation Of Fuels And Fuel Additives; – TR 1200-3, Tennessee Air Quality Act -Tennessee Code Annotated, Section 53-3408, et seq.	Comply with the requirements in: – 40 CFR Part 80, Regulation Of Fuels And Fuel Additives; – TR 1200-3, Tennessee Air Quality Act - Tennessee Code Annotated, Section 53-3408, et seq.
		14.5 GREENHOUSE GAS EMISSIONS	Comply with the requirements in: – 40 CFR Part 98, Mandatory Greenhouse Gas Reporting; – TR 1200-3, Tennessee Air Quality Act -Tennessee Code Annotated, Section 53-3408, et seq.	Comply with the requirements in: – 40 CFR Part 98, Mandatory Greenhouse Gas Reporting; – TR 1200-3, Tennessee Air Quality Act - Tennessee Code Annotated, Section 53-3408, et seq.; Evaluate projects for new potential GHG sources and submit notification to the UCOR EC&P Lead through the project SCC or STR prior to beginning work.
		14.6 RECIPROCATING INTERNAL COMBUSTION ENGINES  APPENDIX C-3 RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)	Comply with the requirements in: – 40 CFR 63, Subpart ZZZZ – TR 1200-3, Tennessee Air Quality Act -Tennessee Code Annotated, Section 53-3408, et seq.	Comply with the requirements in: – 40 CFR 63, Subpart ZZZZ – TR 1200-3, Tennessee Air Quality Act - Tennessee Code Annotated, Section 53-3408, et seq.
		<b>SECTION 14 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**EXAMPLE APPLICABILITY AND RESPONSIBILITY MATRIX**  
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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>15. CLEAN WATER ACT</b>	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– Clean Water Act;</li> <li>– TR 0400-40-01, -03, -04 and -05;</li> <li>– 40 CFR Part 122, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System;</li> <li>– 40 CFR Part 129, Toxic Pollutant Effluent Standards; and</li> <li>– 40 CFR Part 403, General Pretreatment Regulations For Existing And New Sources Of Pollution;</li> <li>– CWA Section 401 Certification (Tennessee Division of Water Resources - rule TR 0400-40-07, Aquatic Resource Alteration);</li> <li>– CWA Section 404 Permit requirements (US Army Corps of Engineers – 33 CFR Parts 320, 322, 325, 329 and 330); (Tennessee Division of Water Resources - rule TR 0400-40-08);</li> <li>– CWA 26A Permit (TVA);</li> <li>– Tennessee Division of Water Resources Aquatic Resource Alteration Permit (ARAP) (Form CN-0191), as applicable;</li> <li>– DOE Order 5400.5 or DOE Order 458.1, <i>Attachment I, Contractor Requirements Document;</i></li> <li>– City of Oak Ridge Sewer Use Ordinance (City Ordinance Number 9-91), and updates of No Discharge Certification for UCOR operations at the ETPP;</li> <li>– Site-specific individual NPDES permits;</li> <li>– TNR100000, General NPDES Permit for Discharges of Stormwater Associated With Construction Activities, where applicable.</li> </ul>

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETPP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		15.1 ALTERATIONS TO AQUATIC RESOURCES	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– Clean Water Act;</li> <li>– 40 CFR Part 122, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System;</li> <li>– CWA Section 401 Certification (TDEC Division of Water Resources - rule TR 0400-40);</li> <li>– CWA Section 404 Permit requirements (US Army Corps of Engineers);</li> <li>– CWA 26A Permit (TVA);</li> <li>– Submit application for TDEC Division of Water Resources Aquatic Resource Alteration Permit (ARAP) (Form CN-0191), as applicable.</li> </ul>

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		15.2 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT  APPENDIX T - ENVIRONMENTAL SIGNAGE/POSTING REQUIREMENTS AND BEST PRACTICES	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	Comply with the requirements in: – TR 0400-40-01, -03, -04 and -05; – Tennessee Water Quality Control Act TCA 69-3-108 (Permits); – Section 402 – Federal Clean Water Act; – 40 CFR Part 122, EPA Administered Permit Programs: The National Pollutant Discharge Elimination System; – 40 CFR Part 124, Procedures for Decision Making; – 40 CFR Part 125, Criteria and Standards for the National Pollutant Discharge Elimination System; – 40 CFR Part 129, Toxic Pollutant Effluent Standards; – Submit construction Notice of Intent if required; – 40 CFR Part 403, General Pretreatment Regulations For Existing And New Sources Of Pollution; – City of Oak Ridge Sewer Ordinance Number 1-91; – DOE Order 5400.5 or DOE Order 458.1, <i>Attachment 1, Contractor Requirements Document</i> ;  Con't on next page

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		15.2 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (con't)	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description. (con't).</i>	<ul style="list-style-type: none"> <li>– Comply with the conditions of the applicable Storm Water Pollution Prevention Plan (SWPPP): <ul style="list-style-type: none"> <li>▪ <i>ETTP - East Tennessee Technology Park Storm Water Pollution Prevention Program Baseline Document, Oak Ridge, Tennessee, UCOR-4255, latest revision;</i></li> <li>▪ <i>ORNL - ORNL Storm Water Pollution Prevention Plan (SWP3) for Oak Ridge National Laboratory, latest revision;</i></li> <li>▪ <i>Y-12 Plant - Y-12 Storm Water Pollution Prevention Plan, Y/TS-1180, latest revision;</i></li> </ul> </li> <li>– Report immediately to the PSS/LSS any material that is poured, released, or washed into a storm drain;</li> <li>– Submit DMR monitoring data;</li> <li>– Submit NPDES SAP;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>

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NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		15.3 SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN  APPENDIX Q - SPILL PREVENTION, CONTROL, AND COUNTERMEASURES REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>.</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	Comply with the applicable Spill Prevention, Control, and Countermeasure (SPCC) Plan: <ul style="list-style-type: none"> <li>– 40 CFR Part 110, Discharge of Oil;</li> <li>– 40 CFR Part 112, Oil Pollution Prevention;</li> <li>– ETTP and EMWMF - <i>Spill Prevention, Control, and Countermeasure Plan for the East Tennessee Technology Park and the Environmental Management Waste Management Facility, Oak Ridge, Tennessee, UCOR-4870, latest revision;</i></li> <li>– ORNL - <i>Spill Prevention, Control, and Countermeasure Plan, Oak Ridge National Laboratory, ORNL ECS/93-10, latest revision;</i></li> <li>– Y-12 Plant - <i>Spill Prevention, Control, and Countermeasure Plan for the U.S. DOE Y-12 Security Complex, Y/SUB/02-001091, latest revision;</i></li> <li>– ORR Landfills – <i>Spill Prevention, Control, and Countermeasure Plan for the Oak Ridge Reservation Landfills, Oak Ridge, Tennessee, UCOR-5079, latest revision;</i></li> <li>– Provide SPCC awareness training and annual discharge prevention briefing (at subcontractor’s expense) to appropriate subcontractor personnel;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>

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NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative.’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		15.4 CONTROL OF RADIOACTIVE DISCHARGES TO SURFACE WATER, GROUNDWATER, OR SANITARY SEWER	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i> .	Comply with the applicable sections of DOE Order 5400.5 or DOE Order 458.1, <i>Attachment 1, Contractor Requirements Document</i> .
		15.5 MODIFICATIONS TO LIQUIDS TREATMENT FACILITIES	– Submit prior notifications to applicable agencies.	Submit prior notification to UCOR and applicable agencies as required.
		<b>SECTION 15 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>16. RESOURCE CONSERVATION AND RECOVERY ACT COMPLIANCE</b>  APPENDIX T - ENVIRONMENTAL SIGNAGE/POSTING REQUIREMENTS AND BEST PRACTICES	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i></li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– RCRA (42 USC 6901 et seq.);</li> <li>– TN Hazardous Waste Management Act (TCA 68-212-101 et seq.);</li> <li>– TR 0400-12-01-.01 through TR 0400-12-01-.06;</li> <li>– PPD-WM-2400, <i>UCOR Waste Management Program Plan</i>;</li> <li>– Submit forms UCN-2109 as required;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		16.1 RCRA WASTE MANAGEMENT REQUIREMENTS  APPENDIX E-1 - RCRA WASTE MANAGEMENT REQUIREMENTS  APPENDIX E-2 - SPECIFIC FACILITY STANDARDS FOR RCRA HAZARDOUS WASTE PERMITTED STORAGE UNITS  APPENDIX E-3 - EXAMPLE WASTE CONTAINER LABELS  APPENDIX R - WASTE GENERATOR SHIPPING REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>;</li> <li>– PPD-WM-2400, <i>UCOR Waste Management Program Plan</i>;</li> <li>– PROC-WM-2013, <i>Certification of Waste for Disposal at the Nevada National Security Site</i>, as applicable;</li> <li>– UCOR-4187, <i>URS / CH2M Oak Ridge LLC Waste Certification Program Plan, Oak Ridge, Tennessee</i>;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– RCRA (42 USC 6901 et seq.);</li> <li>– TN Hazardous Waste Management Act (TCA 68-212-101 et seq.);</li> <li>– TR 0400-12-01-.01 through TR 0400-12-01-.06;</li> <li>– PPD-WM-2400, <i>UCOR Waste Management Program Plan</i>;</li> <li>– UCOR-4187, <i>URS / CH2M Oak Ridge LLC Waste Certification Program Plan, Oak Ridge, Tennessee</i>;</li> <li>– PROC-WM-2013, <i>Certification of Waste for Disposal at the Nevada National Security Site</i>, as applicable;</li> <li>– PROC-WM-2024, <i>Identifying and Tracking Waste Containers for Shipment to Non-UCOR Facilities</i>, as applicable;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		16.2 SATELLITE ACCUMULATION AREA  APPENDIX F - RCRA SATELLITE ACCUMULATION AREA REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i>.</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<ul style="list-style-type: none"> <li>– Comply with TR 0400-12-01-.03, (and TR 0400-12-01-.05 as applicable);</li> <li>– Comply with PROC-WM-2021, <i>UCOR Waste Management Areas</i>;</li> <li>– Submit notification of new SAA to UCOR EC&amp;P Lead through the project SCC or STR;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative.’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		16.3 90-DAY ACCUMLATION AREA  APPENDIX G - RCRA 90-DAY ACCUMULATION AREA REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i></li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<ul style="list-style-type: none"> <li>– Comply with TR 0400-12-01-.03 (and TR 0400-12-01-.05 as applicable);</li> <li>– Comply with PROC-WM-2021, <i>UCOR Waste Management Areas</i>;</li> <li>– Submit notification of new 90-DAA to the UCOR EC&amp;P Lead through the project SCC or STR;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		16.4 SOLID WASTE DISPOSAL ACT (NON-HAZARDOUS SOLID WASTE DISPOSAL)  APPENDIX S – SOLID WASTE DISPOSAL ACT (SANITARY/ INDUSTRIAL WASTE) REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i></li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<p>Comply with the requirements in:</p> <ul style="list-style-type: none"> <li>– 40 CFR Parts 257 and 258, and amendments;</li> <li>– TR 0400-11-01;</li> <li>– TN Solid Waste Disposal Act (TCA 68-211-801 et seq.);</li> <li>– TN Subsurface Sewage Disposal Systems (TCA 68-221-701);</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		16.5 USED OIL  APPENDIX H - USED OIL GENERATION AND HANDLING REQUIREMENTS  APPENDIX R - WASTE GENERATOR SHIPPING REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i></li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<ul style="list-style-type: none"> <li>– Comply with the requirements identified in TR 0400-12-01-.11;</li> <li>– Comply with PROC-WM-2021, <i>UCOR Waste Management Areas</i>;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>

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NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		16.6 UNIVERSAL WASTE  APPENDIX J - UNIVERSAL WASTE HANDLING REQUIREMENTS	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i></li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<ul style="list-style-type: none"> <li>– Comply with requirements in TR 0400-12-01-.12;</li> <li>– Comply with PROC-WM-2021, <i>UCOR Waste Management Areas</i>;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		16.7 AEROSOL CAN RECYCLING  APPENDIX I - AEROSOL CAN RECYCLING REQUIREMENTS	<ul style="list-style-type: none"> <li>– UCOR Environmental Pager.</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<ul style="list-style-type: none"> <li>– Applies.</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		16.8 UNDERGROUND STORAGE TANKS  APPENDIX K - UNDERGROUND STORAGE TANK REQUIREMENTS  APPENDIX T - ENVIRONMENTAL SIGNAGE/POSTING REQUIREMENTS AND BEST PRACTICES	<ul style="list-style-type: none"> <li>– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i></li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<ul style="list-style-type: none"> <li>– Comply with TN Petroleum UST Act (TCA 68-215-101) and TR 0400-18-01 as applicable.</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		16.9 ABOVEGROUND STORAGE TANKS	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	Comply with the requirements in: – CAA; – CWA; – 40 CFR 260-279; – TR 0400-12-01, Hazardous Waste Management.
		16.10 HAZARDOUS AND SOLID WASTE AMENDMENTS TNHW-164	– Notify TDEC within 30 days of the discovery or creation of a new SWMU or AOC. – Notify TDEC of any new releases from an existing SWMU or AOC within 30 days of discovery.	– Submit information on any new or unreported SWMUs or AOC to the UCOR EC&P Lead through the project SCC or STR, as applicable; – Notify the UCOR EC&P Lead through the project SCC or STR of any new releases to environment that may trigger reporting to regulators.
		16.11 PERMIT FEES	– Applies.	Applies. – Submit fees as applicable.
		16.12 RCRA-CONTAMINATED EQUIPMENT	– Form-2390, RCRA – Contaminated Equipment Release Form.	– Submit completed Form-2390, RCRA – Contaminated Equipment Release Form, to the UCOR EC&P Lead through the SCC or STR.
		<b>SECTION 16 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Appendix A**  
**EXAMPLE APPLICABILITY AND RESPONSIBILITY MATRIX**  
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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>17. TOXIC SUBSTANCES CONTROL ACT AND PCB WASTE</b>  APPENDIX E-3 - EXAMPLE WASTE CONTAINER LABELS  APPENDIX L - TEMPORARY PCB STORAGE REQUIREMENTS  APPENDIX M - ONE-YEAR PCB STORAGE REQUIREMENTS  APPENDIX N – GUIDANCE FOR DECONTAMINATION OF EQUIPMENT CONTAMINATED WITH PCB OIL, PCB REMEDIATION WASTE, OR PCB BULK PRODUCT WASTE  APPENDIX R - WASTE GENERATOR SHIPPING REQUIREMENTS  APPENDIX T - ENVIRONMENTAL SIGNAGE/POSTING REQUIREMENTS AND BEST PRACTICES	Comply with the requirements in: – PPD-EC-3194, <i>Balance of Environmental Regulations Program Description</i> ; – PPD-WM-2400, <i>UCOR Waste Management Program Plan</i> ; Form-2239, PCB – Contaminated Equipment Release Form. Comply with listed requirements, as applicable to Scope of Work.	Comply with the requirements in: – TSCA (15 USC 2601-2671); – 40 CFR Part 761, and amendments; – Submit forms UCN-2109 as required in PPD-WM-2400, <i>UCOR Waste Management Program Plan</i> ; – PROC-WM-2020, <i>Pre-Job Planning for Waste Generating Activities</i> ; – Oak Ridge Reservation-Polychlorinated Biphenyls-Federal Facilities Compliance Agreement, latest revision.  Submit completed Form-2239, PCB – Contaminated Equipment Release Form to the UCOR EC&P Lead through the SCC or STR.  Comply with listed requirements, as applicable to Scope of Work.
		<b>SECTION 17 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative.’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2, 3</sup>
Yes	No			
		<b>18. STATE OF TENNESSEE OVERSIGHT AGREEMENT</b>	– PPD-EC-3194, <i>Balance of Environmental Regulations Program Description.</i>	<ul style="list-style-type: none"> <li>– Allow access for TOA representatives into subcontracted facilities and make prior verbal and written notification of such visits to the project SCC or STR;</li> <li>– Coordinate through the project SCC or STR all requests from the TOA for data, documentation, and other relevant information on a given project or work task;</li> <li>– Submit notification to UCOR as required.</li> </ul>
		<b>SECTION 18 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>19. POLLUTION PREVENTION AND AFFIRMATIVE PROCUREMENT</b>  APPENDIX U – ALKALINE BATTERY MANAGEMENT	<ul style="list-style-type: none"> <li>– POL-UCOR-007, <i>Environmental Management and Protection</i>;</li> <li>– DOE Order 436.1, <i>Departmental Sustainability, Attachment 1, Contractor Requirements Document</i>;</li> <li>– RCRA Section 6002;</li> <li>– 42 USC 11001-11050, Emergency Planning and Community Right-to-Know Act;</li> <li>– US DOE <i>Affirmative Procurement Program for Products Containing Recovered Materials</i>;</li> <li>– Review annually, the P2 Program Plan;</li> <li>– Provide P2 input to Annual RCRA Report of HW Activities;</li> <li>– Prepare annually, Hazardous Waste Reduction Progress Report;</li> <li>– Provide P2 input to Toxic Chemical Release Inventory (TRI) Report;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	Comply with the requirements in: <ul style="list-style-type: none"> <li>– TCA 68-212-301, TN Hazardous Waste Reduction Act;</li> <li>– TCA 68-46-306A, TN Pollution Prevention Act;</li> <li>– RCRA Section 6002;</li> <li>– Pollution Prevention Act (PPA) of 1990;</li> <li>– 7 CFR 2902, Designation of Biobased Items for Federal Procurement;</li> <li>– 40 CFR Part 247, Comprehensive Guidelines for the Procurement of Products Containing Recovered Materials;</li> <li>– 42 USC 11001-11050, Emergency Planning and Community Right-to-Know Act (EPCRA);</li> <li>– Submit pollution prevention reports as requested;</li> <li>– Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		<b>SECTION 19 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative.’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>20. ENVIRONMENTAL RADIATION PROTECTION</b>	<ul style="list-style-type: none"> <li>– PPD-EC-3192, <i>Environmental Radiation Protection Program for URS / CH2M Oak Ridge LLC</i>;</li> <li>– PROC-RP-4001, <i>ALARA Program</i>;</li> <li>– Functional and Project personnel will provide oversight to ensure projects’ execution documents incorporate ALARA principles.</li> </ul>	<ul style="list-style-type: none"> <li>– Comply with 10 CFR Part 835;</li> <li>– Comply with the requirements in the PPD-RP-4000, <i>Radiation Protection Program Description for URS / CH2M Oak Ridge LLC, Oak Ridge, Tennessee</i>;</li> <li>– Comply with PPD-EC-3192, <i>Environmental Radiation Protection Program for URS / CH2M Oak Ridge LLC</i>;</li> <li>– Comply with PROC-RP-4001, <i>ALARA Program</i>;</li> <li>– Comply with DOE Order 5400.5 or DOE Order 458.1, <i>Attachment 1, Contractor Requirements Document, Radiation Protection of the Public and Environment</i>;</li> <li>– Comply with DOE Order 231.1B, <i>Environment, Safety and Health Reporting, Attachment 1, Contractor Requirements Document</i>.</li> </ul>
		<b>SECTION 20 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

Applicability		Section:	UCOR Responsibility <sup>1</sup>	Subcontractor Responsibility <sup>2,3</sup>
Yes	No			
		<b>21. ENVIRONMENTAL COMPLIANCE AND PROTECTION MANAGEMENT AND SELF-ASSESSMENTS AND SUBCONTRACTOR OVERSIGHT</b>  APPENDIX O - LINES OF INQUIRY FOR EC&P MANAGEMENT OR SELF-ASSESSMENTS AND INDEPENDENT ASSESSMENTS	<ul style="list-style-type: none"> <li>- Project EC&amp;P Leads perform EC&amp;P management self-assessments based on criteria in Appendix O;</li> <li>- Comply with listed requirements, as applicable to Scope of Work.</li> </ul>	<ul style="list-style-type: none"> <li>- Subcontractors perform EC&amp;P management self-assessments and independent assessments based on criteria in Appendix O;</li> <li>- Submit self-assessment reports as required;</li> <li>- Comply with listed requirements, as applicable to Scope of Work.</li> </ul>
		<b>SECTION 21 COMMENTS:</b>	<ul style="list-style-type: none"> <li>- Alternative lines of inquiry to those identified in Appendix O can be used.</li> </ul>	Alternative lines of inquiry to those identified in Appendix O can be used.

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

NA – Not applicable

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**Table A.1. Example Applicability and Responsibility Matrix**

<b>Applicability</b>		<b>Section:</b>	<b>UCOR Responsibility<sup>1</sup></b>	<b>Subcontractor Responsibility<sup>2, 3</sup></b>
<b>Yes</b>	<b>No</b>			
		<b>22. REFERENCES</b>	As applicable.	As applicable.
		<b>SECTION 22 COMMENTS:</b>		

NOTE – 1: “UCOR Responsibility” includes compliance with DOE Contract requirements, as identified in DOE Contract DE-SC-0004645, Part III, Appendix E, Baseline List of Required Compliance Documents, and refers to UCOR’s role as DOE’s Oak Ridge ETTP Contract management and oversight contractor.

NOTE – 2: For all self-performed work, UCOR will meet the applicability requirements listed under the column titled “Subcontractor Responsibility.”

NOTE – 3: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is ‘substantive’ or ‘administrative;’ ARARs should be evaluated for applicability under CERCLA authorized activities.

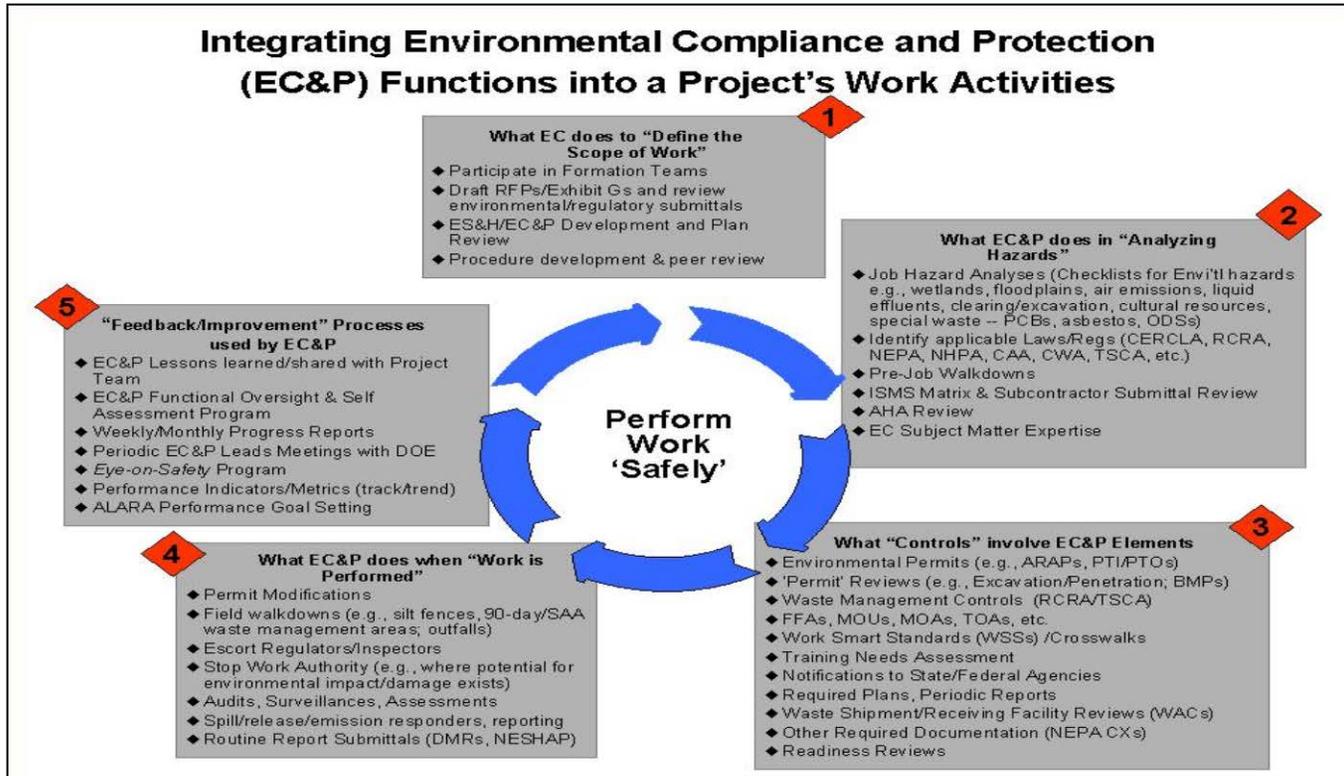
NA – Not applicable

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## Appendix B

# INTEGRATING ENVIRONMENTAL COMPLIANCE AND PROTECTION FUNCTIONS INTO A PROJECT'S WORK ACTIVITIES

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**RADIONUCLIDE NESHAP REQUIREMENTS**  
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All project work with the potential to emit radionuclides into the air, whether fugitive or point source (stacks or vents), from DOE facilities is subject to demonstrating that this activity would not cause any member of the public to receive a combined effective dose equivalent from all ORR operations of 10 mrem/year <TR 1200-3-11-.08 §61.92>.

**A. Applicable Regulations and Requirements**

1. EPA: 40 Code of Federal Regulations (CFR) 61, Subpart H <§61.91 to §61.97>.
2. TDEC: TR 1200-3-11-.08.
3. ANSI/HPS 13.1-1999 “Sampling and Monitoring Releases of Airborne Radioactive Substances from the Stacks and Ducts of Nuclear Facilities”.
4. DOE: “Compliance Plan National Emission Standards for Hazardous Air pollutants for Airborne Radionuclides on the Oak Ridge Reservation” (DOE/ORO/2196).
5. UCOR: *Balance of Environmental Regulations Program Description* (PPD-EC-3194).
6. UCOR: *Quality Assurance Program Plan for Compliance with Radionuclide National Emission Standards for Hazardous Air Pollutants East Tennessee Technology Park, Oak Ridge, Tennessee* (UCOR-4257).

**B. Definitions**

1. ED Equivalent Dose (ED): Sum of the products of absorbed dose and appropriate factors to account for differences in biological effectiveness due to the quality of radiation and its distribution in the body of reference man.
2. Facility: All buildings, structures, and operations on one contiguous site. The ORR is defined under 40 CFR 61, Subpart H (preamble) as one contiguous site subject to the standard.
3. Fugitive/Diffuse source: Any source that is spatially distributed, diffuse in nature, or not emitted with forced air from a stack, vent, or other confined conduit.
4. Grandfathered source: A “major” radionuclide emission source that was in operation prior to January 1, 2003. And, if the process or air pollution control system is modified or relocated would not result in a net increase of not less than 0.1 mrem/year.
5. Member of the public (offsite): Any person located off the ORR at a business, residence, or school which is occupied during any portion of the year.
6. Member of the public (onsite): Any person that is not required to wear a DOE access security badge at their primary work site located on the ORR and there are no DOE physical security controls to access that location.
7. Point source-major: Any stack or vent release that would cause any member of the public to receive a potential to emit ED greater than or equal to 0.1 mrem/year.

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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8. Point source-minor: Any stack or vent release that would cause any member of the public to receive a potential to emit ED that is less than 0.1 mrem/year.
9. Potential to emit: The discharge of radionuclides that would result if all pollution control equipment did not exist.

**C. UCOR Potential to Emit Determination Requirements**

All UCOR projects and subcontractors, that in the course of their work could generate airborne radionuclide emissions, shall complete the questionnaire provided in Fig. C1-1 and submit the information to the EC&P Lead and shall not initiate such work until guidance is provided by EC&P Lead based upon the potential EDB-1 assessment results. This requirement is relevant to all projects, including CERCLA projects, such that these activities must demonstrate compliance with all applicable emission standards <§61.93(f)>.

The project or subcontractor shall be notified of the results of the potential ED assessment and subsequent compliance requirements by the EC&P Lead. This will include any applicable monitoring, permitting, reporting, record keeping, and the classification of the activity. Source classification is defined as a major or minor source based on the potential ED.

In the event that any project or subcontractor proposes to modify the process, venting system, amounts of material to be processed, or update the radionuclide content, a reassessment of the potential ED must be performed to ensure continued compliance with regulations.

**D. Major Source Compliance Record Keeping Regulatory Requirements**

If any proposed process or activity is classified as a major source (potential ED in excess of 0.1 mrem/year), it is required to directly monitor emissions. The following actions and documentation are required to be maintained in the project file <§61.95>:

1. All process and stack emission information as described in the previous section.
2. Results of all measurements, calculations and/or analytical methods used.
3. Copy of the most recent potential ED assessment report and compliance requirements provided by the EC&P Lead.
4. Procedures used to establish continuous sampling location.
5. For grandfathered sources, include all applicable maintenance, calibration, and field check requirements as listed in Table 5 of the document ANSI/HPS N13.1-1999.
6. For a major source constructed after January 1, 2003, include all applicable documentation as specified in ANSI/HPS N13.1-1999.

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.



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7. Procedure used to determine the potential ED.
8. Air pollution control equipment maintenance records.
9. Applicable health physics monitoring records.

**E. Major Source Compliance Stack Emission Monitoring Regulatory Requirements**

If any proposed process or activity is classified as a major source (potential ED that is greater than or equal to 0.1 mrem/year) and it is required to directly monitor emissions, the following actions are required:

1. Prior to construction or operation, the project or subcontractor shall insure that an approved emission monitoring system is selected. Refer to §61.93 and DOE/ORO/2196.
2. Effluent flow rate measurements for grandfathered sources shall be made using either EPA Reference Method 2 or 2A of Appendix A to 40 CFR 60 as applicable to determine velocity and volumetric flow rates <§61.93(b)(1)>, an approved methodology in DOE/ORO/2196, or following guidance presented in ANSI/HPS N13.1-1999 <§61.93(b)>.
3. Effluent flow rate measurements for major sources not in existence prior to January 1, 2003, shall be made using an approved methodology in DOE/ORO/2196, or following guidance presented in ANSI/HPS N13.1-1999 <§61.93(b)>.
4. Sampling location for any source constructed or operation not in existence prior to January 1, 2003, shall be determined using an approved methodology in DOE/ORO/2196, or following guidance presented in ANSI/HPS N13.1-1999 <§61.93(b)>.
5. Radionuclides shall be directly monitored or extracted, collected and measured using approved methods as described in §61.93(b) and DOE/ORO/2196.
6. Any deviation from the monitoring requirements specified in §61.93(b) may only be used with EPA prior approval <§61.93(b)>. The project or subcontractor shall contact the EC&P Lead to initiate actions to obtain approval.
7. A quality assurance program shall be conducted that meets the performance requirements described in ANSI/HPS N13.1-1999 <§61.93(b)(2)(iv)>.
8. The sampling and analysis methodology shall be capable of measuring all radionuclides in the effluent stream that could contribute greater than 10% of the potential ED <§61.93(b)(4)(i)>.
9. All records and information used to confirm emissions shall be maintained <§61.95>.

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**F. Major Source Compliance Environmental Monitoring Regulatory Requirements**

If any proposed process or activity is classified as a major source (potential ED greater than or equal to 0.1 mrem/year) and the use environmental of measurements are planned, the following actions are required:

1. The project or subcontractor shall contact the EC&P Lead for obtaining pre-approval to use environmental measurements to demonstrate compliance with the standard <§61.93(b)>.
2. The project or subcontractor shall contact the EC&P Lead for guidance to identify the key receptor location and ensure the methodology, sampling schedule, analytical methods, and record keeping are compatible with existing radionuclide NESHAP monitoring networks and comply with §61.93(5).
3. All records and information used to confirm emissions shall be maintained <§61.95>.

**G. Major Source Compliance Permitting Regulatory Requirements**

If any proposed process or activity is classified as a major source (potential ED greater than or equal to 0.1 mrem/year), regulatory approval is required prior to construction or modification. The following actions are required <§61.96 and TR 1200-3-9-.04(5)4(iv)>:

1. The project or subcontractor shall contact the EC&P Lead for guidance to prepare and submit an application for approval to construct or modify as required under TR 1200-3-9.

**H. Minor Source Compliance Demonstration Regulatory Requirements**

If any proposed process or activity is classified as a minor source (potential ED less than 0.1 mrem/year) and therefore subject to guidelines as listed in DOE/ORO/2196, the following actions and documentation are required to be maintained in the project file:

1. The project or subcontractor shall use periodic confirmatory measurements to verify low emissions <§61.93(b)(2)>.
2. The measurement technique shall comply with pre-approved methods listed in DOE/ORO/2196.
3. Confirmatory measurements shall be performed no less frequent than once per calendar year. More frequent confirmations may be required by the EC&P Lead based upon the potential ED of the source.
4. All records and information used to confirm emissions are less than 0.1 mrem/year shall be maintained <§61.95>.

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**I. Annual Reporting Regulatory Requirements**

The project or subcontractor responsible for operating any emission source (major or minor), that is subject to the radionuclide NESHAP standard, is required to provide all emission measurement annual results to their applicable EC&P Lead no later than March 1<sup>st</sup> of each year for all measurements taken during the previous calendar year <§61.94>. The following information is required:

1. All information as noted in the previous section of this Appendix titled “UCOR Potential to Emit Determination Requirements.”
2. List of radionuclides and amounts released from the source during the applicable reporting period <§61.94(b)(2)>.
3. Certification statement signed by a responsible person representing the project or subcontractor. The certification shall be phrased as follows: <§61.94(b)(9)>.

“I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties of submitting false information including the possibility of fine and imprisonment. See, 18 U.S.C. 1001.”

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**Appendix C -2**  
**ASBESTOS NESHAP REQUIREMENTS**  
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All UCOR project work to abate or potentially disturb asbestos containing materials (ACM) or demolish a building with or without ACM at a DOE facility is subject to all applicable regulations and requirements as stated in this appendix.

**A. Applicable Regulations and Requirements**

- EPA: 40 CFR 61, Subpart M
- EPA: 40 CFR 763
- EPA: 29 CFR 1910
- EPA: 29 CFR 1926
- TDEC: TR 1200-3-11-.02
- UCOR: *Balance of Environmental Regulations Program Description* (PPD-EC-3194)
- UCOR: *Asbestos and Other Fibrous Materials* (PROC-IH-5177)

**B. U. S. Environmental Protection Agency Guidance**

The asbestos NESHAP regulation requires that asbestos waste be disposed “as soon as is practical.” Regulatory interpretation or guidance does not dictate a specific time frame by which waste must be disposed. EPA addressed this issue in their response to comments in EPA-450/3-90-017; “National Emission Standards for Asbestos --- Background Information for Promulgated Asbestos NESHAP Revisions,” October, 1990. Below is an excerpt from this document:

*11.12 HOLDING TIME*

*Comment: Three commenters (15, 21, and 54) submitted comments on the subject of holding time. They recommend that a timeframe for disposal be specified (e.g., not more than 5 days from the last day that asbestos is stripped or removed), that a timeframe or holding time also be specified for manufacturing and fabricating sources, and that the rule require waste to be deposited as soon as possible rather than as soon as practical at a disposal site.*

*Response: Because of the varying lengths of time needed to accumulate enough waste to economically transport waste to a disposal site, EPA believes it is less burdensome to allow the waste generator to decide when to take waste to a disposal site. Waste that is being held for transport must be properly contained and, therefore, does not pose a public health threat.*

Other EPA correspondence indicates that “a full truckload of waste would be considered ‘practical’ for shipping to the disposal site” (Letter, dated June 25, 1991, from John B. Rasnic, EPA-HQ’s Stationary Source Compliance Division, Office of Air Quality Planning and Standards to Mr. C. R. Sludge, Asbestos Consultant).

Accumulation areas for ACM waste may be used if applicable requirements are met for area posting, waste traceability, protection of wastes, no visible emissions, and timely disposal.

ACM left in place during demolition may be permitted. EPA regulations permit demolition of buildings without prior removal if less than threshold quantities of friable (regulated) ACM (RACM) are present. EPA also permits demolition without prior removal when any quantity of nonfriable ACM is present as long as the material is not likely to become friable.

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**ASBESTOS NESHAP REQUIREMENTS**  
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Additional guidance documents that can be found on the EPA website:

1. “Asbestos NESHAP Regulated Asbestos Containing Materials Guidance”
2. “Demolition Practices Under the Asbestos NESHAP”
3. “Asbestos NESHAP Adequately Wet Guidance”
4. “Reporting and Record Keeping requirements for Waste Disposal”

**C. Definitions**

1. ACM: Asbestos containing material with content >1% asbestos as determined using Polarized Light Microscopy according to the method specified in 40 CFR 763, Subpart F, Appendix A, Section I.
2. Friable ACM: Any material containing >1% asbestos that when dry can be crumbled, pulverized, or reduced to powder by hand pressure. <40 CFR 61.141>
3. Nonfriable ACM: Any material containing >1% asbestos that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure, further defined as Category I and Category II nonfriable ACM.
4. Category I nonfriable ACM: Any material, such as but not restricted to, packing, gasket, resilient floor covering, or asphalt roofing product which contains >1% asbestos.
5. Category II nonfriable ACM: Any material, excluding Category I nonfriable ACM, such as but not restricted to, cement siding or transite board shingles which contains >1% asbestos that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.
6. RACM: ACM that is friable, Category I nonfriable ACM that has become friable, Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.
7. NDR: Notification of Demolition and Renovation (federal).
8. NADR: Notification of Asbestos Demolition or Renovation (TN).
9. ACWM: Asbestos Containing Waste Material: Mill tailings or any waste that contains commercial asbestos and is generated by a source to the provisions of this rule. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

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**D. Pre-Asbestos Abatement/Demolition UCOR Requirements**

Ensure the affected facility or part of the facility has been thoroughly inspected where the demolition or renovation operation will occur for the presence of asbestos, including inventories of RACM, potentially RACM, and Category I and II nonfriable ACMs (UCOR requirement).

Have all regulatory documentation, contractual, and any other required project plans approved prior to operations and that can include but not restricted to any or all of the following (UCOR requirement):

1. Asbestos hazard abatement plan
2. Safety plan
3. Name of certified laboratory
4. Building inspector/supervisor contact and certification information
5. Name and location of certified waste disposal site
6. Certification of worker training
7. Asbestos Work Authorization permit

Any changes that arise affecting required plans or documentation during the course of the project are fully recorded and approved (UCOR requirement).

**E. Regulatory Notification Requirements**

Demolition or Renovations: Before commencing a demolition with no ACM or a demolition or renovation that impacts types of ACM at amounts not less than those listed in TR 1200-3-11-.02(2)(d)(1), the project or subcontractor will be responsible for providing specific information in writing to the Tennessee Division of Air Pollution Control Technical Secretary <TR 1200-3-11-.02(2)(d)1>. The following items reference the NADR (TDEC Form CN-1055) and identify actions and associated documentation that are required to be submitted. It should be noted that NADRs are also required to be submitted prior to demolition of small structures and disposal of trailers.

1. Non-ACM: I, II, III, IV, V, VI, IX, X, XII, XIII, XVI, XVII, XVIII.
2. ACM present: I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, XVI, XVII, XVIII.
3. NADR shall be submitted at least ten working days prior to the scheduled starting date of demolition or the starting date of ACM abatement activities whichever is the earliest <TR 1200-3-11-.02(2)(d)2(iii)(I)>.
4. If necessary, the NADR shall be updated and resubmitted to the Technical Secretary as soon as practical, including when the amount of asbestos affected changes by at least 20% <TR 1200-3-11-.02(2)(d)2(ii)>.

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5. For an asbestos abatement activity in a demolition or renovation operations, and for a demolition (non-ACM) that will begin on a date other than the one provided in the original NADR, a revised NADR must be provided to the Technical Secretary.
  - a. If the new date will be after the date contained in the original NADR <TR 1200-3-11-.02(2)(d)2(iii)(IV)I>:
    - 1) Notify the Technical Secretary of the new start date by telephone as soon as possible before the original start date, and submit an updated NADR as soon as possible before, and no later than the original start date.
  - b. If the new date will be earlier than the date contained in the original NADR <TR 1200-3-11-.02(2)(d)2(iii)(IV)II>:
    - 1) Provide the Technical Secretary an updated NADR with the new date at least ten working days before abatement or demolition operations where ACM is present.
    - 2) Provide the Technical Secretary an updated NADR with the new date at least ten working days before demolition operations where ACM is not present.
  
6. Small Non-Scheduled Renovations: All projects and subcontractors will predict and submit to their applicable EC&P Lead, the total annual amounts of asbestos from all small (non-CERCLA) maintenance or renovation work that individually would be in quantities less than the amounts listed in TR 1200-3-11-.02(2)(d)(1). The period of performance is from January 1 through December 31 <TR 1200-3-11-.02(d)1(iv)(III)>.
  
7. The project or subcontractor is responsible for providing the requested predicted amounts in writing to their applicable EC&P Lead by the December 1<sup>st</sup> of each year that precede the period of performance. The requested information will include the following:
  - a. Calendar Year of prediction
  - b. Total projected square feet of RACM and potentially RACM
  - c. Total projected linear feet of RACM and potentially RACM
  - d. Total projected cubic feet of RACM and potentially RACM

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**F. UCOR Notification Requirements**

1. Demolition or Renovations: The applicable EC&P Lead shall be included on the distribution list of all original and, if applicable, revised NADR submittals (UCOR requirement).
2. Small Non-Scheduled Renovations: The project or subcontractor is responsible for providing the total actual amounts of asbestos abated during the current year in writing by the December 1<sup>st</sup> of each year. The requested information will include the following (UCOR requirement):
  - a. Current calendar year including a projection for the remainder of the current year from the date of your submittal through December 31<sup>st</sup>.
  - b. Total actual square feet of RACM.
  - c. Total actual linear feet of RACM.
  - d. Total actual cubic feet of RACM.

The annual submittal shall include the project name or subcontractor work scope and the signature of a responsible official or representative (UCOR requirement).

**G. Regulatory Asbestos Abatement Work Practice Requirements**

All projects and subcontractors shall establish required asbestos NESHAP work practices and perform asbestos abatement using trained qualified personnel and to control any potential release of airborne asbestos fibers to protect the public <TR 1200-3-11-.02(2)(d)3>.

1. The project or subcontractor shall have at least one representative with asbestos NESHAP defined training present whenever any RACM is being abated or disturbed. Training records must be posted at the abatement site <TR 1200-3-11-.02(2)(d)3(viii)>.
2. Unless prior written approval from the Technical Secretary has been received, all RACM exposed during ACM stripping, component cutting or disjoining operations, component removal and ACM stripping of these components, shall be “adequately wet” and ensure it remains wet until collected and contained in preparation for disposal <TR 1200-3-11-.02(1)(b)>.
3. If prior written approval from the Technical Secretary has been received, a copy shall be kept at the work site and made available for inspection <TR 1200-3-11-.02(2)(j)3(iii)(III)>.
4. All RACM or ACM that could potentially become RACM from ACM stripping, components cut or disjoined, ACM stripped from these components, shall be contained in “leak tight” wrapping such that solids, dusts, or liquids cannot escape or spill out <TR 1200-3-11-.02(1)(y)>.

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5. Approved work practices shall ensure that no “visible emissions” from RACM or asbestos containing wastes are detectable without the aid of instruments. <TR 1200-3-11-.02(1)(pp)> This includes <TR 1200-3-11-.02(2)(d)3(iii)(I)II>:
  - a. Local exhaust ventilation and collection systems designed and operated to capture the particulate asbestos material produced by the stripping and removal of the ACM.
  - b. Glove bag systems.
  - c. Leak tight wrapping containing RACM.
6. Local enclosures, glove bags, exhaust systems, and wetting agents shall conform with design, performance, and operational criteria as specified in 29 CFR 1926.1101.

**H. Regulatory Hazard Communication and Waste Labeling Requirements**

All projects and subcontractors shall incorporate required asbestos NESHAP warning signs, placarding, and labeling requirements as follows:

1. All regulated areas shall be posted at all approaches to these areas so that an employee may read the signs and take necessary protective steps before entering the area. The warning signs shall bear the following information <29 CFR 1910.1001(j)(4) and 29 CFR 1926.1101(k)(7)>:

DANGER  
ASBESTOS  
MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
AUTHORIZED PERSONNEL ONLY

2. All ACM containers or wrapped ACM materials shall be labeled in accordance with Occupational Safety and Health Administration (OSHA) specifications <TR 1200-3-11-.02(2)(j)1(i)(IV)>. The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible and bear the following information <29 CFR 1910.1001(j)(5) and 29 CFR 1926.1101(k)(8)>:

DANGER  
CONTAINS ASBESTOS FIBERS  
MAY CAUSE CANCER  
CAUSES DAMAGE TO LUNGS  
DO NOT BREATHE DUST  
AVOID CREATING DUST

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3. Any vehicle used to transport asbestos containing waste material during the loading and unloading of waste shall be marked so that signs are visible so that an employee may read the signs and take necessary protective steps before entering the area <TR 1200-3-11-.02(2)(j)3>. The warning signs shall bear the following information that conform to the specifications in TR 1200-3-11-.02(2)(k)4(i)(I), (II), and (III):

DANGER  
ASBESTOS DUST HAZARD  
CANCER AND LUNG DISEASE HAZARD  
Authorized Personnel Only

**I. UCOR Hazard Communication and Waste Labeling Requirement**

All ACM containers or wrapped ACM materials to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated (UCOR requirement).

**J. Regulatory Transportation and Disposal Requirements**

The project or subcontractor shall deposit all asbestos containing waste material “as soon as is practical” at a waste disposal site unless such material in Category I nonfriable ACM that is not RACM or have the potential to become RACM <TR 1200-3-11-.02(j)2>. Refer to Section B in this appendix for EPA guidance and interpretation on this requirement.

**K. UCOR Transportation and Disposal Requirement**

The project or subcontractor may use an “accumulation area” for temporary staging of ACM waste prior to disposal. This area must comply with the signage and labeling as identified in the previous section titled “Regulatory Hazardous Communication and Waste Labeling Requirements.” A dumpster may be the accumulation area and require appropriate signage on all approachable sides as referenced in this section. An accumulation area may be used for multiple ACM abatement projects if each container or wrapped waste is individually identified with the project site of origin (UCOR requirement).

**L. Regulatory Waste Generator Records Management Requirement**

The project or subcontractor shall retain a copy of all Waste Shipment Records (WSR), including a copy of the WSR signed by the disposal site for at least two years <TR 1200-3-11-.02(2)(k)5(iv)>.

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**M. UCOR Waste Generator Records Management Requirements**

The project or subcontractor shall retain copies of all associated records as specified in all applicable regulations and requirements as identified in this appendix. This may include but not limited to (UCOR requirement):

1. WSR (original and signed copy)
2. Training records
3. Medical examination records
4. Respirator fit records
5. Exhaust/ventilation system records
6. EPA, state, local agency, or UCOR notification and approval letters
7. Air monitoring records

Records shall be maintained at the project for the required time frames. After the required time frame or if a project is terminated prior to that, records must be sent to the UCOR Document Management Center for long-term record storage.

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**Appendix C-3**  
**RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)**  
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**NOTE:** In addition to CAA requirements, certain Spill Prevention, Control, and Countermeasure (SPCC) requirements may be applicable. See Appendix Q, Section I, SPCC Specification Requirements for Oil-powered Generators.

UCOR and subcontractor operations are subject to CAA regulation, 40 CFR 63, Subpart ZZZZ if the project owns or operates a stationary RICE, or could become subject to this subpart due to plans to install a stationary RICE at a major or area source of HAP emissions. A stationary RICE is also subject to TR 1200-03-09 that establishes the applicability for permitting.

For new units, the project shall provide the EC&P Lead the manufacturer's engine specifications, planned use, and location of a new RICE at least 120 days prior to its installation. The EC&P Lead will use this information to identify explicit regulatory requirements and if the planned unit is acceptable for meeting those requirements. This is to allow time to evaluate potential pollutant emissions, establish the need for permitting, prepare and submit a request for a permit, and for TDEC to issue a permit or a determination that the planned RICE is exempt from permitting. The planned RICE may not be installed at the planned location until a permit is obtained or the unit is deemed exempt from permitting. However, the approved unit may be purchased and delivered to the facility.

Operator requirements vary depending on full time or emergency only use of the RICE and whether the unit is under a permit or is exempt. What purpose the unit was purchased for determines compliance requirements that include certification of engine emission limits, fuel requirements, possible limits to operating hours, scheduled maintenance, and recordkeeping. Below is information on the types of use:

1. Continuous/full time operations
  - a. RICE may have more stringent compliance requirements depending on the horsepower rating of the unit.
  - b. The EC&P Lead shall establish the applicable regulatory requirements for the RICE based on an evaluation of the unit.
  - c. The RICE shall be certified by the manufacturer or by the operator by performing emissions testing depending on purchase date of the unit.
  - d. Prescribed maintenance and recordkeeping is required.
2. Emergency RICE operations
  - a. Includes the requirements for continuous/full time operation RICE plus a total annual runtime limit of 100 hours for maintenance and non-emergency operation. Of which non-emergency operation is limited to 50 hours annually. There is no runtime limit for emergency operations.
  - b. Prescribed maintenance and recordkeeping is required.

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Air permitting applicability vary depending on engine size, location, and designated use. Identifying the location where the RICE will be (or is) installed will determine the air permit determination path. As determined by the EC&P Lead, the following provides information on the permitting applicability and the associated UCOR work locations. In all cases regarding a new RICE, the unit cannot be installed until a permit or notice of exemption is obtained. However, the approved unit may be purchased and delivered to the facility.

**1. Continuous/full time operating RICE:**

**NOTE:** The RICE shall not be installed until receipt of the TDEC issued permit.

- a. A new RICE at a major source location (ORNL and Y-12 NSC) shall require a construction permit prior to installation <TR 1200-03-09-.01>.
- b. Not less than 90 days of the expiration of the construction permit, a Title V Major Source Operating Permit request shall be prepared and submitted to TDEC <TR 1200-03-09-.02(1)>.
- c. An existing non-permitted RICE at a major source shall require a modification to the existing Title V permit. The project must contact the EC&P Lead immediately for specific instructions for adding the existing RICE to the Title V permit.
- d. At an area source location (ETTP and Y-12 sanitary/industrial landfills), a new or existing RICE will require obtaining from TDEC an air permit or a determination that the planned RICE is exempt from permitting. The project must contact the assigned EC&P Lead immediately for specific instructions.

**2. Emergency RICE:**

- a. At a major source locations (ORNL and Y-12 NSC), permitting the emergency RICE will depend on the Standard Industrial Code (SIC) for the facility. This identification is part of the compliance review performed by the EC&P Lead specific to the following locations:
  - 1) ORNL: The assigned SIC as a research facility is an exempt category under CAA regulations and no permit is required for an emergency RICE.

**NOTE:** If an existing unit, the project must contact the EC&P Lead immediately for specific instructions.

- 2) Y-12 NSC: The new or existing emergency RICE shall be subject to permitting (Title V). A new unit cannot be installed until receipt of an air permit from TDEC.
- b. At area source locations (ETTP and Y-12 sanitary/industrial landfills), permitting a new or existing emergency RICE will depend on the SIC for the facility. This identification is part of the compliance review performed by the EC&P Lead that will determine compliance requirements.
  - 1) The emergency RICE will either require an air permit or authorization to operate under the state's Permit-By-Rule process <TR 0400-30-38-.01(1)>.

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**Appendix D**  
**OZONE DEPLETING SUBSTANCES REQUIREMENTS**  
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**Refrigeration Repair Requirements (Stratospheric Ozone Protection)**  
**(40 CFR Part 82)**

**A. General Regulatory Requirements**

Maintenance of refrigeration equipment shall comply with the following:

1. Purchases of ODSs shall provide the wholesaler who sells refrigerant evidence that at least one employee is a U.S. Environmental Protection Agency (EPA)-Certified Technician <§82.166(b)>.
2. Technicians who maintain, service, or repair refrigerant containing appliances must be properly certified by an approved technician certification program <§82.161>
  - a. Type I – Small appliances
  - b. Type II – Medium-, high-, or very high-pressure appliances, Motor Vehicle Air Conditioning (MVAC), and MVAC type appliances
  - c. Type III – Low-pressure appliances
  - d. Universal – All appliances as identified in this section.
3. Only EPA-certified equipment shall be used to capture and/or reclaim listed ODSs <§82.154>.

**B. General UCOR Requirement**

Appropriate records must be maintained to demonstrate completion of all actions listed below. Records shall include identification of the facility where the refrigeration equipment is located, and the name and title of a contact person and telephone number (UCOR requirement).

**C. Regulatory Requirements for Recharging Equipment Containing ≥ 50lbs Refrigerant**

1. Record the method used to determine the full charge of the system (e.g., measurement, calculation, manufacturer’s information, establish range, combination).
2. If the “range” method or a combination of methods incorporating the “range” method was used, maintain the following records <§82.166(q)>:
  - a. identification of the owner/operator of the system,
  - b. location of the system including facility number and location within the facility,
  - c. original range for full charge, its midpoint, and how the range was determined,
  - d. all revisions of the full charge range, and how determined, and
  - e. date(s) of any revisions.
3. Determine and record the date refrigerant was last added to the system <§82.166(k)>.

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4. Calculate and record the leak rate based on the date that refrigerant was last added to the system. Leaks must be repaired when the appliance leaks at a rate that would release 15% or more of its charge in a year.
  - a. Describe the method used to calculate the leak rate.
  - b. Exclude any purged refrigerant from the leak rate calculation/determination.
5. Maintain records onsite to support the amount of refrigerant claimed as sent for destruction. Records are based on a monitoring strategy that provides reliable data to demonstrate the amount of refrigerant claimed to have been destroyed was not greater than the amount of refrigerant actually purged and destroyed, and that 98% or greater destruction efficiency was met <§82.166(p)(2)>.
6. Maintain records pertaining to purged refrigerant that include the following <§82.166(p)(2)>:
  - a. flow rate of purge flow,
  - b. quantity or concentration of the refrigerant in the vent stream, and
  - c. periods of purge flow.

**D. Regulatory Requirements for Repairing Equipment Containing ≥ 50 lbs Refrigerant**

1. Repair any leak(s) within 30 days of discovery. Ensure that the repairs are based on sound professional judgment and will be sufficient to bring the leak rates below the applicable allowable annual leak rate for the equipment being repaired <§82.156(i)(3)>. This requirement may be waived if, within 30 days:
  - a. the system has been mothballed (evacuated and documented as such);
  - b. repair was delayed due to lack of available parts or other applicable regulations (maintain records to justify the delay); or
  - c. a plan has been developed for the system to be retired/retrofitted.
2. Ensure that if the chiller unit has been mothballed, the equipment has been drained of listed ODS and lubricants and is disabled <§82.152>.
3. If parts necessary to repair the leak(s) were unavailable or other applicable federal, state, or local regulations made repair within 30 days impossible, then complete repairs within 30 days plus the additional time needed to receive delivery of the necessary parts or to comply with the pertinent regulations <§82.156(i)(2)(i)>.

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4. Notify EPA of the need for additional time to repair leaks due to regulatory delays or delayed delivery of necessary part. The notification and onsite documents include the following <§82.166(n)>:
  - a. identification of the facility;
  - b. leak rate of the equipment;
  - c. method used to determine the leak rate and full charge;
  - d. date of discovery that the leak rate was above the applicable allowable annual leak rate;
  - e. location of the leaks to the extent determined;
  - f. any repair work that has already been completed and the date the work was completed;
  - g. documentation of the reasons why more than 30 days are needed to complete the work; and
  - h. estimate of when the repairs will be completed.
5. Document all repair efforts <§82.156(i)(2)>.
6. Conduct an initial verification test <§82.152>.
7. If system was taken off line, keep the system off-line until the initial verification test indicates that the repairs have been successfully completed <§82.156 (i)(3)(i)>.
8. Conduct a follow-up verification test within 30 days after the initial verification test, or if the system was taken off-line, within 30 days of bringing the system back on line <§82.156 (i)(3)>.
9. Conduct the follow-up verification test at normal operating characteristics and conditions <§82.156 (i)(3)>.
  - a. Did sound professional judgment indicate that tests performed at normal operating characteristics and conditions would produce less reliable results?
  - b. The follow-up verification test was conducted at or near the normal operating pressure where practicable <§82.156 (i)(3)>.
  - c. The follow-up verification test indicated that the repair efforts were successful <§82.156 (i)(3)(ii)>.
10. If repairs fail the follow-up verification test, then notify EPA of the failed follow-up verification test and maintain documentation of the failed follow-up verification test available on-site <§82.156 (i)(3)(iii)>.

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11. Ensure the notification/onsite documentation of the failed follow-up verification test includes the following <§82.166 (n)>:
  - a. identification of the facility;
  - b. leak rate;
  - c. method used to determine the leak rate and full charge;
  - d. date of discovery that the leak rate was above the trigger rate;
  - e. location of the leaks to the extent determined;
  - f. any repair work that has already been completed and the date the work was completed; and
  - g. the date(s), type(s), and results of the failed follow-up verification test(s).
12. Maintain repair records for each individual unit in active project files for at least three years. After three years, records can be moved to long-term record repositories <§82.166 (m)>.

**E. Regulatory Requirements for Equipment Disassembly and Disposal**

Any refrigeration equipment containing ODSs that cannot be repaired shall be evacuated and disposed in accordance with all requirements listed in 40 CFR §82.150 Purpose and Scope, §82.154 Prohibitions, and §82.156 Required practices. This includes but not limited to:

1. Small Appliances which means any of the following products that are fully manufactured, charged, and hermetically sealed in a factory with five (5) pounds or less of refrigerant: i.e., refrigerants and freezers for home use, window air conditioners, ice makers, and drinking water coolers.

**F. UCOR Records Management Requirement**

Maintain disposal records for each individual unit in project files for at least three years unless the project is terminated prior to 3 years. After 3 years or when a project is terminated, records must be sent to the UCOR Document Management Center for long-term record storage. (UCOR requirement).

**G. Regulatory Requirements for Servicing of MVAC, MVAC Type Equipment, and Small Appliances**

1. Section 609 prohibits the sale of small cans (less than 20 pounds) of CFC-12 to anyone other than an EPA-certified technician. <§82.42(b)(3)>
2. Only Type II or Universal certified technicians can repair or service MVAC or MVAC type appliances. <§82.40>
3. When refrigeration and air-conditioning equipment enters the waste stream, the final person in the disposal chain must remove (or make certain that their customers have removed) refrigerants prior to appliance disposal. <§82.156(f)>
4. Certified technicians repairing or servicing MVACs must use recovery equipment specific to the type or refrigerant that is approved by EPA. <§82.36>

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**OZONE DEPLETING SUBSTANCES REQUIREMENTS**  
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**Refrigeration Repair Requirements (Stratospheric Ozone Protection)**  
**(40 CFR Part 82)**

5. Refrigerant recycling equipment must be certified by EPA or an approved independent standards testing organization. The equipment is being used properly by trained, certified technicians. <§82.36>
6. MVAC, MVAC type appliances, and small appliance service shops must maintain records of the names and addresses of facilities to which the refrigerant they recover is sent. <§82.42(b)> Service shops are also required to maintain records (onsite) showing that all service technicians are properly certified and must certify to EPA that they own approved equipment. <§82.36 and §82.40(a)>

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**Appendix E -1**  
**RCRA WASTE MANAGEMENT REQUIREMENTS**  
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**A. General Facility Standards for Hazardous Waste Generators**

Projects and subcontractors who generate hazardous waste in the performance of their work under the Oak Ridge Environmental Management Cleanup Contract must comply with the requirements of Tennessee Rules as described below or as specified in the Resource Conservation and Recovery Act (RCRA) permit.

**B. Regulatory Generator Hazardous Waste Determination Requirements**

Projects or subcontractors that generate hazardous waste are responsible for making the appropriate hazardous waste determinations. If adequate process knowledge is not available, sampling is required to make a hazardous waste determination. The waste container must be labeled as “hazardous waste pending analysis” with an accumulation start date. If process knowledge indicates that the waste is non-hazardous and the generator decides to confirm this designation by sampling, the waste container must be labeled as “industrial waste pending analysis” with an accumulation start date until final samples results are received.

A generator who treats, stores, or disposes of hazardous waste onsite must comply with the following portions of TR 0400-12-01-.03 with respect to that waste:

1. subparagraph (1)(b) for determining whether or not they have a hazardous waste;
2. paragraph (2) for notifications;
3. subparagraph (1)(c) for obtaining an installation identification number (if an applicable number does not already exist for the work being performed);
4. subparagraph (4)(e) for accumulation of hazardous waste;
5. subparagraph (5)(a) Parts 3 and 4 for record keeping;
6. subparagraph (5)(b) for annual reporting;
7. and subparagraph (5)(e) for additional reporting.

**C. Regulatory Generator Hazardous Waste Record Keeping and Reporting Requirements**

1. A generator must keep a copy of each manifest signed in accordance with TR 0400-12-01-.03(3)(d) for three years or until they receive a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.
2. A generator must keep a copy of each TN Annual Report, U.S. Environmental Protection Agency (EPA) Biennial Report, and Exception Report for a period of at least three years from the due date of the report <TR 0400-12-01-.03(5)(a)2 and 40 CFR 262.40(b)>.
3. A generator must keep records of any test results, waste analyses, or other determinations made in accordance with TR 0400-12-01-.03(1)(b) for at least three years from the date that the waste was last sent to onsite or offsite treatment, storage or disposal.

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4. Any generator who treats, stores, or disposes of hazardous waste on-site must submit an annual report covering those wastes in accordance with the provisions of 40 CFR parts 270, 264, 265, and 266 <TR 0400-12-01-.06(5)(f)>.
5. The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator <TR 0400-12-01.06(5)(e)2>.

**D. UCOR Generator Hazardous Waste Manifests Requirements**

Hazardous waste transporter must have a valid State of Tennessee issued Transporter Permit in the truck at the time of the hazardous waste pickup. The hazardous waste manifest must include the correct Transporter Permit number <TR 0400-12-01-.03(3)(d)1(i)>.

**E. Regulatory Generator Hazardous Waste Packaging, Labeling, Marking, and Placarding Requirements**

1. Before transporting hazardous waste or offering hazardous waste for transportation offsite, a generator must package the waste in accordance with the applicable U.S. Department of Transportation (DOT) regulations on packaging under 49 CFR parts 173, 178, and 179 <TR 0400-12-01-.03(4)(a)>.
2. Before transporting or offering hazardous waste for transportation offsite, a generator must label each package in accordance with the applicable DOT regulations on hazardous materials under 49 CFR part 172 <TR 0400-12-01-.034(4)(b)>.
3. Before transporting or offering hazardous waste for transportation offsite, a generator must mark each package of hazardous waste in accordance with the applicable DOT regulations on hazardous materials under 49 CFR part 172 <TR 0400-12-01-.03(c)(1)>.
4. The generator shall mark or label each container of 119 gal or less used in transporting hazardous waste offsite with the labeling found at TR 0400-12-01-.03(4)(c)(2) or with the following words and information <TR 0400-12-01-.04(c)>:
  - a. HAZARDOUS WASTE—Improper Disposal Prohibited by Law. If found, contact the nearest police or public safety authority, or the EPA.
  - b. Generator Name and Address
  - c. Manifest Document Number

The marking required above must be (1) durable, in English, and printed on or affixed to the surface of a package or on a label, tag, or sign; (2) displayed on a background of sharply contrasting color; (3) unobscured by labels or attachments; and (4) located away from any other marking (such as advertising) that could substantially reduce its effectiveness.

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**F. UCOR Hazardous Waste Management Requirements**

1. Waste generators shall ensure that the Treatment, Storage, Disposal and Recycle Facility (TSDRF) is a UCOR-approved facility (DIR-UCOR-510).
2. Waste generators shall complete Waste Information Form (Form-2396) and the Waste Stream Worksheet (Form-2395) forms for waste that will be generated in accordance with PROC-WM-2020, *Pre-Job Planning for Waste Generating Activities*.
3. Waste generators shall ensure that originals or copies (as appropriate) of hazardous waste manifests, UCN-2109 forms, LDR Notification Forms, EMWMF shipping papers and waste acceptance paperwork, and all other shipping papers/records are maintained at the generating project for at least 3 years unless the project is terminated prior to 3 years. After 3 years or when a project is terminated, records must be sent to the UCOR Document Management Center for long-term record storage.

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Operators of permitted hazardous waste TSDRFs with Installation Identification Numbers that store containers of hazardous waste must comply with the requirements of Tennessee Rules and UCOR requirements as described below, unless otherwise specified in the RCRA permit.

**A. Regulatory Hazardous Waste Containers Requirements**

1. Projects and subcontractors shall store hazardous waste in appropriate containers that are compatible with the waste they are holding. Containers shall be in good condition (e.g., no severe rusting, apparent structural defects) with no leaks. Should a container begin to leak, the project or subcontractor must transfer the hazardous waste from the leaking container to a container or overpack that is in good condition <TR 0400-12-01-.06(9)(b)>.
2. Containers shall be lined with or made of materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired <TR 0400-12-01-.06(9)(c)>.
3. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste <TR 0400-12-01-.06(9)(d)>.

**NOTE:** Containers in permitted storage, 90-day accumulation area, or a satellite accumulation area that are accumulating solid or semi-solid waste are considered closed as long as there is complete contact between the lid and the rim around the top of the container. There is no requirement that the lid be bolted or the ring band be secured as long as the container is accumulating waste. This definition is in agreement with EPA guidance issued on December 3, 2009, and TDEC's concurrence with the EPA guidance. The lid shall be secured once the container is no longer actively receiving waste.

4. A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak <TR 0400-12-01-.06(9)(d)>.
5. At least weekly, the project or subcontractor must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors <TR 0400-12-01-.06(9)(e)>.
6. Container storage areas must have a containment system that is designed and operated in accordance with TR 0400-12-01-.06(9)(f)2.
7. Containers of hazardous waste subject to the land disposal restrictions shall be shipped offsite for treatment/disposal within one year of the date the container was first placed in permitted storage. Containers that remain stored beyond the one-year limit must have adequate burden-of-proof statements to justify keeping them in storage <TR 0400-12-01-.10(4)>.
8. Empty containers shall be marked as "EMPTY" or with another descriptor identifying that the container is empty (refer to PROC-WM-2010, *Waste Container Management*, for additional information for managing empty containers) (UCOR requirement).

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9. Empty containers shall be managed in a method to prevent accumulation of moisture or rainwater within the container (e.g., covers and lids properly closed, stored upside down) (UCOR requirement).

**B. Regulatory Containment Systems for Container Storage Requirements**

1. A containment system for containers holding free liquids or containers holding any hazardous waste with codes F020, F021, F022, F023, F026, and F027 must be designed and operated as follows <TR 0400-12-01-.06(9)(f)2>:
- a. A base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed <TR 0400-12-01-.06(9)(f)2(i)>;
  - b. The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids <TR 0400-12-01-.06(9)(f)2(ii)>;
  - c. The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination <TR 0400-12-01-.06(9)(f)2(iii)>;
  - d. Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to the 10% required above, to contain any run-on which might enter the system <TR 0400-12-01-.06(9)(f)2(iv)>; and
  - e. Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system <TR 0400-12-01-.06(9)(f)2(v)>.
2. A containment system for containers holding only wastes that do not contain free liquids (excluding waste codes F020, F021, F022, F023, F026, and F027) must be designed and operated as follows:
- a. The storage area shall be sloped or otherwise designed and operated to drain and remove liquid resulting from precipitation <TR 0400-12-01-.06(9)(f)3(i)>; or
  - b. Containers shall be elevated or otherwise protected from contact with accumulated liquid <TR 0400-12-01-.06(9)(f)3(ii)>.
3. Special Requirements for Ignitable or Reactive Waste <TR 0400-12-01-.06(9)(g)>:
- a. Containers holding ignitable or reactive waste must be located at least 15-m (50-ft) from the facility's property line.

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4. Special Requirements for Incompatible Wastes <TR 0400-12-01-.06(9)(h)>:
- a. Incompatible wastes, or incompatible wastes and materials (refer to Appendix V in paragraph (57) of this Rule for examples), must not be placed in the same container, unless part (2)(h)2 of this Rule is complied with.
  - b. Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material.
  - c. A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

**C. Training and Inspections for Hazardous Waste Treatment, Storage, and Disposal Facilities**

The facility operator must inspect their facility for malfunctions and deterioration, operator errors, and discharges that may be causing—or may lead to—(1) release of hazardous waste constituents to the environment or (2) a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment, and comply with all requirements of TR 0400-12-01-.06(2)(f).

Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of TR 0400-12-01-.06(2)(g). The owner or operator must ensure that this program also includes all the elements described in TR 0400-12-01-.06(2)(f).

**D. Regulatory Design and Operation of Hazardous Waste TSDRF Requirements**

1. Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment <TR 0400-12-01-.06(3)(b)>.
2. All facilities must be equipped with the following, unless it can be demonstrated to the Regional Administrator that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below <TR 0400-12-01-.06(3)(c)>:
  - a. An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
  - b. A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

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- c. Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
  - d. Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.
3. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency <TR 0400-12-01-.06(3)(d)>.
  4. Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee <TR 0400-12-01-.06(3)(e)>.
  5. If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance <TR 0400-12-01-.06(3)(e)>.
  6. The facility operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency <TR 0400-12-01-.06(3)(f)>.
  7. The facility operator must make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations <TR 0400-12-01-.06(3)(h)>:
    - a. Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;
    - b. Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and
    - c. Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

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**E. Regulatory Contingency Plan and Emergency Procedures for Hazardous Waste TSDRF Requirements**

Each facility operator must have a contingency plan for their facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. The contingency plan shall conform to the requirements of TR 0400-12-01-.06(4)(a) through TR 0400-12-01-.06(4)(e).

Emergency procedures must include the provisions for performance and execution required in TR 0400-12-01-.06(4)(f) through TR 0400-12-01-.06(4)(g).

**F. Regulatory Hazardous Waste Manifests, Records and Reports for Hazardous Waste TSDRF Requirements**

1. If a facility receives hazardous waste from offsite sources accompanied by a manifest, the operator, or his agent must perform the actions required in TR 0400-12-01-.06(5)(b) and TR 0400-12-01-.06(5)(c).
2. The facility operator must keep a written operating record at his facility, including all information required in TR 0400-12-01-.06(5)(d), as applicable, to the facility.
3. All records, including plans, required under TR 0400-12-01-.06(5) must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of EPA who is duly designated by the Commissioner.
4. The retention period for all records required under TR 0400-12-01-.06(5) is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Commissioner.
5. The facility operator must prepare and submit a single copy of a TN Annual Report to the Department by March 1<sup>st</sup> every year in accordance with TR 0400-12-01-.06(5)(f).
6. The facility operator must prepare and submit additional reports, as required, according to the requirements listed in TR 0400-12-01-.06(5)(g), TR 0400-12-01-.06(5)(h), and the specific requirements in the facility's permit.

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**Appendix E -3**  
**EXAMPLE WASTE CONTAINER LABELS**  
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## ETTP Quick Reference Guide to Waste Container Labeling

**UNIVERSAL WASTE**

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL  
THE FOLLOWING MATERIALS ARE REGULATED AS A  
UNIVERSAL WASTE IN ACCORDANCE WITH 40 CFR PART 273.

UNIVERSAL WASTE - BATTERY(IES)

UNIVERSAL WASTE - MERCURY THERMOSTAT(S)

UNIVERSAL WASTE - MERCURY CONTAINING EQUIPMENT

UNIVERSAL WASTE - PESTICIDE(S)

UNIVERSAL WASTE - LAMP(S)

ACCUMULATION START DATE: \_\_\_\_\_

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D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX  
(REQUIRED DURING TRANSPORT, WHEN MATERIAL IS ALSO  
REGULATED BY 49CFR PARTS 172-180)

**HANDLE WITH CARE!**

Style UW05 © 2005 LABELMASTER®(800) 621-5608 www.labelmaster.com

**Universal Waste Label:** Place on containers used to accumulate universal waste [as defined in TR 0400-12-01-.12].

- Check appropriate box
- **Must include accumulation start date**

# EMPTY

**Empty Label:** Place on containers that contain **no** materials or waste. Alternate descriptors may be used to identify that the container is empty.

*Container **cannot** include any other conflicting labels (e.g., hazardous waste, used oil).*

# USED OIL

**Used Oil Label:** Place on any container, drip pan, or other containment device that is used to accumulate used oil [as defined in TR 0400-12-01-.11(3)(c)3].

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**WASTE CONTAINER LABEL**

RFD/DRUM NUMBER \_\_\_\_\_

M/R NUMBER \_\_\_\_\_

CONTENTS \_\_\_\_\_

SOURCE OF WASTE \_\_\_\_\_

BUILDING \_\_\_\_\_

COMMENTS \_\_\_\_\_

LIQUID    SOLID    SEM-SOLID    COMPRESSED GAS

GENERATION DATE \_\_\_\_\_

REQUESTER \_\_\_\_\_ DATE \_\_\_\_\_ PHONE \_\_\_\_\_

UCH-1007A (1-1-02)

**Waste Container Label:** Place on all waste containers that do not have other labeling to clearly indicate the containers contents.

**CAUTION** 01/01/09  
**CONTAINS**  
**PCBs**  
(Polychlorinated Biphenyls)

A toxic environmental contaminant requiring special handling and disposal in accordance with U.S. Environment Protection Agency Regulations 40 CFR 761. For Disposal Information contact the nearest U.S. E.P.A. Office

In case of accident or spill, call toll free the U.S. Coast Guard National Response Center: (800) 424-8802. Also contact Shift Superintendent Phone (865) 574-3282

Form-128 (2/12), Rev. 0

**PCB M<sub>L</sub> (6x6 in.) or M<sub>S</sub> (sizes vary) Mark (i.e., label):** Place on objects or containers used to accumulate PCBs [as defined in 40 CFR 761].

- *Include PCB out of service date (This is the date the first PCB waste is added to a container or the date an item is declared a waste)*

**CAUTION CONTAINS PCB(s)**  
(Polychlorinated Biphenyls)  
FOR PROPER DISPOSAL INFORMATION  
CONTACT U.S. ENVIRONMENTAL  
PROTECTION AGENCY

**! DANGER**

**CONTAINS ASBESTOS FIBERS**  
**MAY CAUSE CANCER**  
**CAUSES DAMAGE TO LUNGS**  
**DO NOT BREATHE DUST**  
**AVOID CREATING DUST**

**Asbestos Label:** Place on containers used to accumulate asbestos or asbestos containing materials [as defined in 29 CFR 1926.1101(k)(8)(iii) and 29 CFR 1910.1001(j)(5)(ii)].

NOTE: These are example labels. For labels required for a specific waste, refer to the project-specific ARARs.

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**RAD Label:** Place on containers or objects that are radioactive or radioactively contaminated [see PROC-RP-4517].

- *Include the storage date (This is the date the container is filled or closed and no additional waste will be added)*

**Hazardous Waste Label:** Place on containers used to accumulate Hazardous Waste [as defined in TR 0400-12-01-.03(4)(c)(2)].

- *Include basic generator info. (name, address, basic contact information)*
- *EPA ID number*
- *Manifest document number – added during transportation preparation*
- *Accumulation start date*

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**Appendix F**  
**RCRA SATELLITE ACCUMULATION AREA REQUIREMENTS**  
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**A. Regulatory Requirements for Management of the SAA**

1. A satellite accumulation area (SAA) is an area where hazardous waste is accumulated in containers at or near the point where hazardous waste is initially generated. The maximum volume of hazardous waste that can be accumulated is limited to 55-gallons per SAA (or one quart of acutely hazardous waste). The four qualifying criteria for a SAA are: (1) the hazardous waste is accumulated in containers; (2) at or near any point of generation; (3) where wastes initially accumulate; and (4) which is under the control of the operator <TR 0400-12-01-.03(4)(e)5.(i)>.
  - a. Hazardous waste shall be accumulated in an area at or near the point of generation where wastes initially accumulate <TR 0400-12-01-.03(4)(e)5(i)>.
  - b. The hazardous waste shall be under the control of the operator of the process generating the waste <TR 0400-12-01-.03(4)(e)5(i)>. Control may either be supervisory or physical (locks and signage).
  - c. When the 55-gallon (or one quart of acutely hazardous waste) limit is reached, the container(s) shall be marked with the date the container reached the accumulation limit and within three calendar days the container must be moved from the SAA to a 90-day accumulation area or permitted storage and managed in accordance with all applicable requirements <TR 0400-12-01-.03(4)(e)5(ii)>.

**B. UCOR Requirements for Management of the SAA**

1. All SAAs shall be managed so that containers of incompatible hazardous wastes are separated by using spill containment pallets, platforms, dikes, curbs, walls or other devices so that should any containers leak, there would be no chance for incompatible wastes to contact each other (UCOR requirement).

**NOTE:** Liquid or debris in secondary containment must be removed in a timely manner to prevent overflow.

2. Adequate quantities of absorbent material or secondary containment must be available for containers used to store liquid hazardous wastes. Secondary containment shall be provided for liquid hazardous waste (UCOR requirement).
3. All SAAs shall be established and registered using the WMA Establishment Request (Form-2719) in accordance with according to PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
4. Delineate the designated area and post it using approved signage as recommended in Appendix T and in accordance with PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
5. SAAs shall be inspected per the schedule noted in PROC-WM-2021, *UCOR Waste Management Areas*, and shall be documented using Form-2721, RCRA SAA WMA (Hazardous and Mixed Waste) Inspection (UCOR requirement).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**C. Regulatory Hazardous Waste Container Requirements**

1. Hazardous waste accumulated at a SAA shall be stored in containers that comply with the requirements of TR 0400-12-01-.05(9) and TR 0400-12-01-.05(9)(b), (c), and (d)1 as follows:
  - a. Containers shall be marked with the words “Hazardous Waste” or other words that identify the contents of the containers <TR 0400-12-01-.03(4)(e)5(i)(II)>.
  - b. Containers used for accumulation of hazardous waste shall be in good condition and free from leaks or deterioration <TR 0400-12-01-.05(9)(b)>.
  - c. Containers shall be lined with or made of materials that are compatible with the hazardous waste to be stored, to ensure the containers ability to contain the waste <TR 0400-12-01-.05(9)(c)>.
  - d. Containers used for accumulation of hazardous waste shall be kept closed at all times except when it is necessary to add or remove waste <TR 0400-12-01-.05(9)(d)1>.

**NOTE:** Containers in permitted storage, 90-day accumulation area, or a satellite accumulation area that are accumulating solid or semi-solid waste are considered closed as long as there is complete contact between the lid and the rim around the top of the container. There is no requirement that the lid be bolted or the ring band be secured as long as the container is accumulating waste. This definition is in agreement with EPA guidance issued on December 3, 2009, and TDEC’s concurrence with the EPA guidance. The lid shall be secured once the container is no longer actively receiving waste.

**D. UCOR Hazardous Waste Container Requirements**

1. Containers shall be free of conflicting or improper labels (UCOR requirement).
2. Empty containers within this area shall be marked as “EMPTY” or with another descriptor identifying that the container is empty (refer to PROC-WM-2010 for additional requirements for managing empty containers) (UCOR requirement).
3. Empty containers shall be managed in a method to prevent accumulation of moisture or rainwater within the container (e.g., covers and lids properly closed, stored upside down) (UCOR requirement).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**Appendix G**  
**RCRA 90-DAY ACCUMULATION AREA REQUIREMENTS**  
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**A. Regulatory Requirements for Management of the 90-DAA**

The following requirements apply to all 90-day accumulation areas (DAAs) <TR 0400-12-01-.03(4)(e)2.(i)>:

1. Sufficient aisle space shall be provided to allow unobstructed movement of personnel, fire protection equipment, spill control equipment, etc., in the accumulation area <TR 0400-12-01-.05(3)(f)>.
2. 90-DAAs shall be managed to keep containers of incompatible hazardous wastes separated by using spill containment pallets, platforms, dikes, curbs, walls or other devices so that should any containers leak, there would be no chance for incompatible wastes to contact each other <TR 0400-12-01-.05(9)(h)3>.
3. 90-DAAs shall be inspected every 7 days or less looking for leaks and for deterioration caused by corrosion or other factors to ensure that the physical integrity of the containers has not been compromised <TR 0400-12-01-.05(9)(e)> and a written log of the inspections shall be maintained at the facility including the name of the inspector, results, date and time of inspection, and the nature of any repairs or other remedial actions <TR 0400-12-01-.05(2)(f)4>.
4. The owner/operator must inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to releases of hazardous constituents to the environment or a threat to human health <TR 0400-12-01-.05(2)(f)1>.
5. Any deterioration or malfunction of containers that the inspection reveals shall be remedied on a schedule that ensures the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately <TR 0400-12-01-.05(2)(f)3>.
6. Containers holding ignitable or reactive waste shall be located at least 15-m (50-ft) from the facility's property line <TR 0400-12-01-.05(9)(g)>.
7. Spill control and decontamination supplies and equipment as specified in the contingency plan shall be readily available in the accumulation area and in good condition <TR 0400-12-01-.05(3)(c)3>.
8. The 90-DAA shall be provided with a readily accessible fire extinguisher and any other fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), appropriate for the hazards posed by waste handled at the facility <TR 0400-12-01-.05(3)(c)3>.
9. If required to control hazards posed by waste handled at the facility, provide water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems <TR 0400-12-01-.05(3)(c)4>.
10. Containers of hazardous waste shall remain in the 90-DAA for no more than 90 days from the accumulation start date. If more than 90 days will be required, an extension shall be requested from the state regulatory agency <TR 0400-12-01-.05(4)(e)3>.

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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11. A communication device, such as a telephone or two-way radio shall be available at the area <TR 0400-12-01-.05(3)(c)2>.
12. New operators shall receive training within 6 months of being assigned to manage hazardous waste, and shall complete annual Resource Conservation and Recovery Act training (including Contingency Plan) <TR 0400-12-01-.05(2)(g)>.
13. A contingency plan shall be provided that specifies evacuation routes from the area as well as response actions in the event of an emergency <TR 0400-12-01-.05(4)>.
14. The 90-DAA shall be posted with signage: “Danger—Unauthorized Personnel Keep Out” at each entrance to the active portion of a facility, and at other locations in sufficient numbers to be seen from any approach to this active portion. The signage must be legible from a distance of at least 25-ft. Existing signs with a legend other than “Danger—Unauthorized Personnel Keep Out” may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous. <TR 0400-12-01-.05(2)(e)3>.

**B. UCOR Requirements for Management of the 90-DAA**

**NOTE:** Liquid or debris in secondary containment must be removed in a timely manner to prevent overflow.

1. Adequate secondary containment and absorbent material shall be available for liquid hazardous waste stored in 90-DAA (UCOR requirement).
2. All 90-DAA shall be established and registered using the WMA Establishment Request (Form-2719) in accordance with PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
3. The 90-DAA should be delineated with tape, fencing, or rope and pylons or other means to allow for proper inspection and to provide an adequate buffer zone. The 90-DAA should reflect the applicable postings and signage as recommended in Appendix T and in accordance with PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
4. The 90-DAA inspections shall be documented using Form-2720, RCRA 90-DAA WMA (Hazardous and Mixed Waste) Inspection, according to PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
5. For CERCLA actions, hazardous waste containers in a CERCLA RCRA Hazardous Waste WMA shall be marked with the words “Hazardous Waste” and the accumulation start date (UCOR requirement).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**C. Regulatory Hazardous Waste Container Requirements**

1. Hazardous waste accumulated at 90-DAA shall be stored in containers that meet requirements for TR 0400-12-01-.05(27), Air Emission Standards for Process Vents <40 CFR 265 Subpart AA>; TR 0400-12-01-.05(28), Air Emission Standards for Equipment Leaks <40 CFR 265 Subpart BB>; and TR 0400-12-01-.05(29), Air Emission Standards for Tanks, Surface Impoundments, and Containers <40 CFR 265 Subpart CC> as appropriate.
2. Containers shall be marked with the accumulation start date and positioned so that it is visible for inspection on each container <TR 0400-12-01-.03(4)(e)2(ii)>.
3. Containers shall be marked with the words “Hazardous Waste” <TR 0400-12-01-.03(4)(e)2(iii)>.
4. Containers or tanks used for accumulation of hazardous waste shall be in good condition and free from leaks or deterioration <TR 0400-12-01-.05(9)(b)>.
5. Containers shall be lined with or made of materials that are compatible with the hazardous waste to be stored, to ensure the containers ability to contain the waste <TR 0400-12-01-.05(9)(c)>.
6. Containers used for accumulation of hazardous waste shall be kept closed at all times except when it is necessary to add or remove waste <TR 0400-12-01-.05(9)(d)1>.

**NOTE:** Containers in permitted storage, 90-day accumulation area, or a satellite accumulation area that are accumulating solid or semi-solid waste are considered closed as long as there is complete contact between the lid and the rim around the top of the container. There is no requirement that the lid be bolted or the ring band be secured as long as the container is accumulating waste. This definition is in agreement with EPA guidance issued on December 3, 2009, and TDEC’s concurrence with the EPA guidance. The lid shall be secured once the container is no longer actively receiving waste.

7. Containers holding hazardous waste shall be stored, handled, and opened in a manner that cannot rupture the container or cause it to leak <TR 0400-12-01-.05(9)(d)2>.

**D. UCOR Hazardous Waste Container Requirements**

1. Containers shall be free of conflicting or improper labels (UCOR requirement).
2. Containers shall have a waste container label with the container contents identified (UCOR requirement).
3. Empty containers within this area or other designated areas shall be marked as “EMPTY” or with another descriptor identifying that the container is empty. (Refer to PROC-WM-2010 for additional requirements for managing empty containers.) (UCOR requirement).
4. Empty containers shall be managed in a method to prevent accumulation of moisture or rainwater within the container (e.g., covers and lids properly closed, stored upside down) (UCOR requirement).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**Appendix H**  
**USED OIL GENERATION AND HANDLING REQUIREMENTS**  
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**A. Used Oil Generation**

Used oil generated onsite by projects and subcontractors shall be managed in accordance with the requirements in TR 0400-12-01-.11 and in accordance with all applicable Spill Prevention, Control, and Countermeasures <40 CFR Part 112>. “Used oil” means any oil that has been refined from crude oil, or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities <TR 0400-12-01-.11(1)(a)>.

Projects or subcontractors may be generators of used oil. “Used oil generator” means any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation. <TR 0400-12-01-.11(1)(a)>.

**B. Regulatory Requirements for Used Oil**

1. Generators of used oil must manage mixtures of used oil and hazardous waste in accordance with TR 0400-12-01-.11(2)(a)2.
2. If used oil is mixed with listed hazardous waste or the mixture exhibits a characteristic of hazardous waste, it must be managed as a hazardous waste <TR 0400-12-01-.11-(2)(a)2(i)(I)>. If used oil is mixed with hazardous waste that exhibits a hazardous characteristic but the mixture does not exhibit a characteristic, it may be managed as used oil <TR 0400-12-01-.11-(2)(a)2(ii)>.
3. Generators of used oil can manage mixtures of used oil and hazardous waste as used oil if the mixtures DO NOT exhibit a hazardous characteristic, and if they DO NOT contain a listed waste that was listed for reasons other than having a hazardous characteristic <TR 0400-12-01-.11(2)(a)2(ii)(II) and TR 0400-12-01-.11(2)(a)2(ii)(III)>.
4. Generators of used oil can manage used oil having up to 1,000 parts per million (ppm) total halogens, as used oil <TR 0400-12-01-.11(2)(a)2(i)(II)>. Used oil with >1,000 ppm total halogens is presumed to be mixed with hazardous waste and shall be managed as hazardous waste unless a successful rebuttal can be made.
5. Generators may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in TR 0400-12-01-.02(5)(a) Appendix VIII) <TR 0400-12-01-.11(2)(a)2(i)(II)>.
6. Used oil may be filtered onsite and reused for its original purpose <TR 0400-12-01-.11(3)(a)2(ii)(II)>. Such oil must be managed as used oil before and after filtering.
7. Used oil that is to be recycled, including burning for energy recovery, and is also a hazardous waste solely because it exhibits a hazardous characteristic can be managed as used oil <TR 0400-12-01-.02(1)(f)1(iv)>.
8. Generators of used oil may recycle used oil without testing it (refer to TR 0400-12-01-.11(5)(e) and TR 0400-12-01-.11(6)(d)).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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9. Off-specification used oil (used oil that does not meet the specification in 40 CFR 279.11 and TN Rule 0400-12-01-.11(2)(b)) that will be burned for energy recovery can be managed as used oil <TR 0400-12-01-.11(2)(b)>.
10. Generators of used oil must manage used oil containing  $\geq 50$  ppm concentration of polychlorinated biphenyls (PCBs) under 40 CFR Part 761 as PCB waste <TR 0400-12-01-.11-(2)(a)9>.
11. Generators of used oil may manage used oil containing < 50 ppm of PCBs as used oil as long as the concentration of PCBs is not a result of dilution <TR 0400-12-01-.11-(2)(a)9>.

**C. UCOR Requirements for Used Oil**

1. If process knowledge indicates the oil may contain hazardous waste, PCBs, or radioactivity, it shall be characterized and managed accordingly (UCOR requirement).
2. Used refrigerant oil with >1,000 ppm chlorofluorocarbons (CFCs) shall be clearly identified and segregated to prevent inadvertent mixing with other used oil (UCOR requirement).
3. Characterization of used oil must include a documented, justified, and defensible statement as to whether the used oil contains total halogens at a concentration above or below 1,000 ppm (analytical data, process knowledge, previous characterization of the used oil from the same source, etc.) (UCOR requirement).

**NOTE 1:** Used oils removed from refrigeration units are not subject to the rebuttable presumption if the CFCs are destined for reclamation <TR 0400-12-01.11(2)2(i)(II)II>. However, no facilities are currently available to reclaim CFCs from used oil and as such the used oil is subject to the used oil rebuttable presumption.

**NOTE 2:** The rebuttable presumption may be rebutted, regardless of the total halogen content, if the used oil is believed not to have been mixed with F001 or F002 waste and if none of the constituents subject to regulation under waste codes F001 and F002, as described in TR 0400-12-01-.02(4)(b), are present in the used oil at a concentration equal to or greater than 100 ppm each.

4. When characterization of used oil reveals that the used oil exhibits a concentration of total halogens equal to or greater than 1,000 ppm, the characterization package for the used oil must contain a written statement indicating that the rebuttable presumption cannot be rebutted (used oil must be managed as F001 or F002-coded hazardous waste) or must contain a documented, justifiable, and defensible rebuttal (UCOR requirement).
5. Manage used oil known or suspected to contain radiological contamination as low-level waste and as used oil (UCOR requirement).
6. Full containers of used oil (non-radiological) must be shipped for recycle within one year of the container reaching capacity (UCOR requirement).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**D. Regulatory Requirements for Used Oil Accumulation and Storage**

1. Used oil containers and tanks must be labeled as “Used Oil” at the time of generation <TR 0400-12-01-.11(3)(c)3>.

**NOTE:** It is not acceptable to label only a funnel that may be attached to the container if a funnel is being used for draining oil. The actual container of oil must be labeled.

2. Containers used for the storage of used oil must be in good condition (no rust, leaks, dents, etc. present) <TR 0400-12-01-.11(3)(c)2(i)>.
3. Containers must not be leaking (no visible leaks) <TR 0400-12-01-.11(3)(c)2(ii)>.
4. Tanks and bulk containers must be durable, closable, and compatible with used oil <40 CFR 112.8(c) and TR 0400-12-01-.11(3)(c)>.
5. Projects and subcontractors who store used oil onsite must comply with the Spill Prevention, Control, and Countermeasures Plan <TR 0400-12-01-.11(3)(c) and 40 CFR 112, Subparts A and D> for the site at which they are located (UCOR at ETPP, UT-Battelle at ORNL, and CNS at Y-12 NSC).

**E. UCOR Requirements for Used Oil Accumulation and Storage**

1. All used oil areas shall be established and registered using the WMA Establishment Request (Form-2719) in accordance with PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
2. Areas shall have the applicable postings and signage and in accordance with PROC-WM-2021, *UCOR Waste Management Areas*, and as recommended in Appendix T (UCOR requirement).
3. The used oil accumulation area shall be inspected per the schedule noted in PROC-WM-2021, *UCOR Waste Management Areas*, and the inspections shall be documented using Form-2728, Used Oil WMA Inspections (UCOR requirement).
4. Areas must be staged in a manner that will protect containers from the elements and must comply with the site spill prevention control, and countermeasure plan (UCOR requirement).
5. Containers shall be closed except when adding or removing used oil. Small containers and buckets that are used for vehicle and equipment oil changes and to catch seepage from hoses or nozzles do not have to be kept closed, but must be labeled with a “used oil” label. These types of containers shall be closed or emptied into proper long-term storage containers when a task is completed or at the end of each day (UCOR requirement).
6. Generators of used oil must take steps to prevent leaks and spills of used oil in their accumulation areas (provide a clear work area and ensure funnels and other equipment are in good working order) (UCOR requirement).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**USED OIL GENERATION AND HANDLING REQUIREMENTS**  
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7. Tanks and containers have closures that will not allow water to enter, and will not leak if the container is tipped (UCOR requirement).
8. Waste generators shall ensure that UCN-2109 forms and shipping papers/records are maintained at the generating project for at least 3 years unless the project is terminated prior to 3 years. After 3 years or when a project is terminated, records must be sent to the UCOR Document Management Center for long-term record storage (UCOR requirement).
9. Empty containers within this area or other designated areas shall be marked as "EMPTY" or with another descriptor identifying that the container is empty. It is not necessary to apply "Empty" labels each time a container is emptied when the intent is to reuse it for the same purpose. Once containers are to be disposed, containers should be freed of liquids, and "Empty" labels affixed prior to staging/storing for disposal (refer to PROC-WM-2010 for additional requirements for managing empty containers) (UCOR requirement).
10. Empty containers shall be managed in a method to prevent accumulation of moisture or rainwater within the container (e.g., covers and lids properly closed, stored upside down) (UCOR requirement).

**F. Regulatory Requirement for Used Oil Releases**

1. Projects and subcontractors who store used oil onsite must comply with the Spill Prevention, Control, and Countermeasure Plan <TR 0400-12-01-.11(3)(c) and 40 CFR 112, Subparts A and D> for the site at which they are located (UCOR at ETTP, UT-Battelle at ORNL, and CNS at Y-12 NSC). These requirements are described above in Section 15.3, Spill Prevention, Control, and Countermeasure Plan.
2. Upon detection of a release of used oil to the environment, a generator of used oil must perform the following cleanup steps <TR 0400-12-01-.11(3)(c)4>:
  - a. Stop the release;
  - b. Contain the released used oil;
  - c. Clean up and manage properly the released used oil and other materials; and
  - d. If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

**G. Regulatory Requirements for Used Oil Filters Recycling**

Used automotive oil filters shall be drained by puncturing the anti-drainback valve or dome end; crushing; or dismantling <TR 0400-12-01-.02(1)(d)2(x)>. Acceptable methods for draining oil filters <per TCA 68-211-1019> include: (1) puncture and hot-drain for a minimum of 12 hours, (2) puncture and cold-drain for a minimum of 24 hours, (3) drain and crush, and (4) prepare for disposal as otherwise provided by rules and regulations. Filters shall be drained until no drips or runs are apparent <TR 0400-12-01-.11(3)(a)2(ii)(II)IV>.

**NOTE:** Used oil filters that are sent off-site to a used oil recycler do not have to be drained; however, the container must be labeled as "Used Oil".

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Used oil filters may be excluded from hazardous waste regulations provided they are non-terne plated (terne is a tin-lead alloy that is no longer used in automotive oil filters made in the U.S.) are not mixed with other hazardous waste and are properly drained <TR 0400-12-01-.02(1)(d)2(x)>. Used filters from which the oil has been removed using an approved method to the extent that no visible signs of free flowing oil remain in or on the filter, are not subject to management as used oil <TR 0400-12-01-.11(2)(a)3(i)(I)> and may be recycled as scrap metal or disposed as solid waste.

**H. UCOR Requirements for Used Oil Filters Recycling**

Containers should be marked as containing used oil filters for recycle and adsorbent added to the bottom of the container to adsorb any residual free oils that may drain from the oil filters. It is not necessary to apply “Empty” labels each time a container is emptied when the intent is to reuse it for the same purpose. Once containers are to be disposed, containers should be freed of liquids, and “Empty” labels affixed prior to staging/storing for disposal (UCOR requirement).

Crushed filters are to be stored in a container marked to identify the contents as scrap metal for recycle (UCOR requirement).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**Appendix I**  
**AEROSOL CAN RECYCLING REQUIREMENTS**  
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**A. UCOR Requirements for Managing Empty Aerosol Cans**

All empty aerosol cans, except those incompatible with the contents of the puncturing device, shall be punctured first and recycled as scrap metal (UCOR requirement). Non-empty aerosol cans (cans that still contain unused product) that can no longer be used (e.g., broken nozzle, nozzle clogged) must be managed as hazardous waste.

**NOTE:** If an aerosol can is used and/or emptied within a radiological area, it may be surveyed and released without radiological restrictions in accordance with the requirements of DOE Order 5400.5 or DOE Order 458.1, *Attachment 1, Contractor Requirements Document*, provided the can is intact (i.e., not yet punctured). However, the DOE metals recycling moratorium (National Nuclear Security Administration Memorandum dated October 27, 2008) prohibits the recycling of metals declared scrap while in a Radiological Area. As such, aerosol cans that are punctured within a radiological area may not be recycled.

**B. UCOR Requirements for Managing Empty Aerosol Cans**

1. Since empty recycled aerosol cans are covered under the RCRA scrap metal exemption, the cans do not need to be managed as hazardous waste prior to being sent to an offsite recycling facility (UCOR requirement).
2. Prior to being punctured, empty aerosol cans shall be collected in containers labeled as containing empty aerosol cans for recycle (UCOR requirement).
3. Aerosol cans shall be collected and transferred to a consolidated recycling area for bulking or processing (UCOR requirement).

**C. Regulatory Requirements for Handling Aerosol Cans Before They are Sent for Recycling**

1. Non-empty aerosol cans must either be returned to the generator for use; punctured immediately; or stored in a Hazardous Waste accumulation area <TR 0400-12-01-.03(4)(e)5>.
2. Residual material collected from punctured aerosol cans must be characterized <TR 0400-12-01-.03(1)(b)>.

**D. UCOR Requirements for Handling Residuals Collected from Puncturing Aerosol Cans**

1. The collection drum is considered a SAA and shall be labeled and managed in accordance with the UCOR requirements included in Appendix F (UCOR requirement).
2. A positive determination of compatibility must be made for all first-time aerosol cans being punctured (UCOR requirement).
3. The operator shall make sure that the puncturing device is securely attached to the top of the drum and that the drum is not full before puncturing any cans (UCOR requirement).

**NOTE:** For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**AEROSOL CAN RECYCLING REQUIREMENTS**  
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4. If there are concerns with compatibility of the liquids that are collected in the container or questions about the safe use of the device, contact your EC&P Lead before you start puncturing any cans (UCOR requirement).

**E. UCOR Requirements for Preventing Pollution from Aerosol Cans**

1. Ask employees to minimize aerosol use. Prompt them to completely empty aerosol cans before disposing of them. Encourage employees to make suggestions on substitutes and other ways to minimize aerosol use (UCOR requirement).
2. Do not dispose of aerosol cans in stock until they are completely used up or no longer usable (UCOR requirement).

**NOTE:** Usable product that is no longer needed by a project should be offered to other UCOR organizations for use in lieu of disposal.

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**Appendix J**  
**UNIVERSAL WASTE HANDLING REQUIREMENTS**  
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This appendix presents the packaging and handling requirements for Universal Wastes as defined in the Rules and Regulations of the State of Tennessee <TR 0400-12-01-.12> and in the Code of Federal Regulations <40 CFR 273>. All universal wastes must be managed in accordance with the following:

1. Waste must be stored in closed, structurally sound, non-leaking containers that are compatible with the waste, except intact batteries <TR 0400-12-01-.12(3)(d)>.
2. Universal waste batteries that show evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions must be contained in a separate container <TR 0400-12-01-.12(3)(d)1.(i)>.
3. Operators must be thoroughly familiar with proper waste handling and emergency procedures <TR 0400-12-01-.12(3)(g)>.
4. Waste shall be stored in a manner that prevents releases into the environment <TR 0400-12-01-.12(3)(d)>.
5. Universal wastes may be accumulated for no longer than one year from the date the universal waste is generated <TR 0400-12-01-.12(3)(f)1.>. The length of time that the universal waste is accumulated from the date it becomes a waste may be demonstrated by <TR 0400-12-01-.12(3)(f)3.>:
  - a. Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
  - b. Marking or labeling the individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;
  - c. Maintaining an inventory system onsite that identifies the date the universal waste being accumulated became a waste or was received;
  - d. Maintaining an inventory system onsite that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;
  - e. Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or
  - f. Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.
6. Any release of universal wastes or residue of universal waste must be immediately contained.
7. The WMA Establishment Request (Form-2719) shall be completed for all universal waste accumulation areas according to PROC-WM-2021, *UCOR Waste Management Areas*, and the EC&P Lead shall be notified of all accumulation areas (UCOR requirement).
8. The universal waste accumulation area shall reflect the applicable postings and signage as recommended in Appendix T and PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
9. The universal waste accumulation area shall be inspected per the schedule noted in PROC-WM-2021, *UCOR Waste Management Areas*, and the inspections shall be documented on Form-2724, Universal Waste WMA Inspection (UCOR requirement).

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**Appendix J**  
**UNIVERSAL WASTE HANDLING REQUIREMENTS**  
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**I. Batteries**

**A. Regulatory Waste Management Requirements**

Batteries are defined as “...a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.” <TR 0400-12-01-.12(1)(b)>

A battery (used or unused) becomes a waste on the date it is discarded. Waste batteries must be managed in a way that prevents releases of any universal waste or universal waste component to the environment. Universal waste batteries, or the container in which the batteries are contained, must be labeled or marked clearly with the date the battery was discarded, or the date that the initial waste was placed in the container, and any of the following phrases <TR 0400-12-01-.12(3)(e)1.>:

- a) Universal Waste – Battery (ies)
- b) Waste Battery (ies)
- c) Used Battery (ies)

**NOTE 1:** Used lead-acid batteries that are being sent to an off-site reclamation facility are not subject to this labeling requirement if they are being managed under TR 0400-12-01-.09(7) for reclamation or regeneration.

**NOTE 2:** Refer to Appendix U for the proper management of alkaline batteries.

**B. UCOR Handling Requirements**

Universal waste batteries may be stored on a spill pallet as long as the pallet is labeled with a proper universal waste label, and each individual battery is marked with the date the battery became universal waste. Spill pallets may be used as containers for lead acid batteries (UCOR requirement).

Exposed terminals or connectors on universal waste batteries must be protected with non-conductive caps or non-conductive tape (UCOR requirement).

**II. Pesticides**

A “pesticide” is defined as “...any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

1. Is a new animal drug under FFDCA section 201(w), or
2. Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or
3. Is an animal feed under FFDCA section 201(x) that bears or contains any substances described by parts 1 or 2 of this definition” <TR 0400-12-01-.12(1)(b)>.

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Pesticides that are covered under the Universal Waste Pesticide rule include:

1. Recalled pesticides that are:
  - a. Stocks of a suspended and canceled pesticide that are part of a voluntary or mandatory recall under FIFRA; or
  - b. Stocks of a suspended or cancelled pesticide, or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.
2. Stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.

Universal waste pesticides (recalled and/or collected) containers must be labeled or marked clearly with the date the waste was discarded, or the initial date that waste was placed in the container, and the following:

1. The label that was on, or accompanied the product as sold or distributed; and
2. The words “Universal Waste-Pesticide(s)” or “Waste-Pesticide(s)” <TR 0400-12-01-.12(3)(e)2.(ii) and TR 0400-12-01-.12(3)(e)3.(i)(iii)>.

Hazardous unwanted pesticides that do not fall into one of the two categories noted above (recalled and/or collected) will be managed under the hazardous waste regulations. Non-regulated unwanted pesticides will be managed under the solid waste regulations.

**III. Mercury-Containing Equipment/Mercury-Added Consumer Products**

**Mercury-containing equipment** is defined as “...a device or part of a device (including thermostats, but excluding batteries and lamps) that contains elemental mercury integral to its function.” <TR 0400-12-01-.12(1)(b)>.

**Thermostats** is defined as “...a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices” <TR 0400-12-01-.12(1)(b)>.

Effective January 1, 2011, Tennessee enacted a law that bans the disposal of *mercury-added consumer products* in any non-hazardous landfill. “Mercury-added consumer products” are any material, device, or part of a device which includes, but are not limited to:

*Thermostats; Thermometers; Switches (whether individually or as part of another product); Medical or scientific instruments; Electrical relays and other electrical devices; Lamps and light bulbs; and Batteries*

All UCOR projects shall comply with the TN Mercury Product Disposal Control Act by handling these types of wastes as universal wastes.

Used and unused mercury-containing equipment and/or mercury-added consumer products becomes a waste on the date it is discarded.

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Mercury-containing equipment/mercury-added consumer products (i.e., each device), or a container in which the equipment/product is contained, must be labeled or marked clearly with the date the equipment/product was discarded, or the initial date that waste was placed in the container, and any of the following phrases <TR 0400-12-01-.12(3)(e)4.(i)>:

1. Universal Waste-Mercury Containing Equipment;
2. Waste Mercury-Containing Equipment; or
3. Used Mercury-Containing Equipment

A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats must be labeled or marked clearly with the date it was discarded, or the initial date waste was placed in the container, and any of the following phrases <TR 0400-12-01-.12(3)(e)4.(ii)>:

1. Universal Waste-Mercury Thermostat(s);
2. Waste Mercury Thermostat(s);
3. Used Mercury Thermostat(s).

**IV. Lamps**

A “lamp”, also referred to as a “universal waste lamp,” is defined as “the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps” <TR 0400-12-01-.12(1)(b)>.

Used and unused lamps become a waste on the date they are broken and/or discarded (i.e., removed from the fixture).

Broken lamps, or lamps that show evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment must be immediately cleaned up and placed in an appropriate container.

Universal waste lamps may be treated for volume reduction at the site where they were generated under the provisions of TR 0400-12-01-.12(8) and under the following conditions <TR 0400-12-01-.12(3)(d)4.>:

1. The lamps must be crushed in a system designed and operated to minimize the loss of mercury or other hazardous constituents to the atmosphere. Any air exhausted from the unit shall pass through a well-maintained high efficiency particulate air filter designed to minimize such loss. Detailed records regarding this operation must be kept and made available for review for at least three (3) years, including, but not limited to, the technology employed for crushing, including any certification or testing data provided by the manufacturer of the crushing unit;
2. The handler immediately transfers any material recovered from a spill or leak to a container that meets the requirements of TR 0400-12-01-.03(4)(e), and has available equipment necessary to comply with this requirement;

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3. The handler ensures that the area in which the lamps are crushed is well-ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury or other hazardous constituents;
4. The handler ensures that employees crushing lamps are thoroughly familiar with proper waste mercury or other hazardous constituents handling and emergency procedures, including transfer of mercury or other hazardous constituents from containment devices to appropriate containers; and
5. The crushed lamps are stored in closed, non-leaking containers that are in good condition (e.g., no severe rusting, apparent structural defects or deterioration), suitable to prevent releases during storage, handling and transportation.

Universal waste lamps (i.e., each lamp), or a container or package in which such lamps are contained must be labeled or marked clearly with the date the lamp was discarded, or the initial date waste was placed in the container and any one of the following phrases <TR 0400-12-01-.12(3)(e)5.>:

1. Universal Waste – Lamp(s); or
2. Waste Lamp(s); or
3. Used Lamp(s).

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**Appendix K**  
**UNDERGROUND STORAGE TANK REQUIREMENTS**  
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**A. Regulatory Requirements for USTs**

Operation and maintenance of Underground Storage Tanks (USTs) shall comply with the following:

**NOTE:** Liquid or debris in secondary containment must be removed in a timely manner to prevent overflow and meet the secondary containment capacity requirements.

1. Maintain knowledge of when the tank system was installed and composition and types of tanks, piping, secondary containment systems, spill and overflow equipment, corrosion protection systems, compatibilities, replacements, and repairs. <TR 0400-18-01-.02(1) through 0400-18-01-.02(7)>.
2. Maintain a copy of the current annual petroleum UST fees receipt as evidence that the required specified fees have been paid for the tank system <TR 0400-18-01-.10(3) and TR 0400-18-01-.10(5)>.
3. Do not store any non-petroleum products in the tank <TR 0400-18-01-.01(4)>.
4. Monitor tank at least every 30 days for releases, using one of the following systems <TR 0400-18-01-.04(2)(a)>:
  - a. automatic tank gauging (ATG),
  - b. interstitial monitoring <TR 0400-18-01-.04(2)(a), TR 0400-18-01-.04(3)(d), TR 0400-18-01-.04(3)(g)>.
5. Maintain records of the monthly tank monitoring <TR 0400-18-01.04(5)>.
6. Conduct release detection for piping in accordance with the following:
  - a. Conduct line-tightness testing of pipes to detect a 0.1 gal/hour leak rate at 1.5 times the operating pressure annually <TR 0400-18-01-.04(4)(b)>.
  - b. Ensure presence of automatic line leak detectors capable of alerting the operator or shutting off flow through piping when they detect leaks of 3 gallons per hour at 10 psi line pressure within 1 hour <TR 0400-18-01-.04(4)(a)>.
  - c. Conduct operational testing of the automatic line leak detectors in accordance with Division guidance <TR 0400-18-01-.04(4)(a)>.
  - d. Maintain line-tightness test results until the next test is conducted <TR 0400-18-01-.04(5)(b)>.
  - e. Maintain line leak detector test results for at least 12 months <TR 0400-18-01-.04(5)(b)>.
  - f. Verify pass/fail results <TR 0400-18-01-.04(4)(b), TR 0400-18-01.04(5)(b)>.
7. Maintain records of performance claims for the release detection system <TR 0400-18-01-.04(5)(a)>.
8. Maintain written documentation of all calibration, maintenance, and repairs of release detection equipment maintained for the UST <TR 0400-18-01-.04(5)(c)>.
9. Verify schedules of required calibration and maintenance provided by the release detection equipment manufacturer <TR 0400-18-01-.04(5)(c)>.

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10. Verify there is no reason to suspect a problem with the tank or any part of the tank system <TR 400-18-01-.05(1)>.
11. Ensure the tank owner (or designee) is present during all liquid transfers into the tanks <TR 0400-18-01-.03(1)(a)>.
12. Ensure the tank is equipped with a cathodic protection system <TR 0400-18-01-.03(2)(b)>.
13. Maintain records indicating the cathodic protection system was tested within 6 months of installation, and at least every 3 years <TR 0400-18-01-.03(2)(b)>.
14. Ensure the Corrosion Protection's Impressed Current System rectifier is visually inspected every 60 days <TR 0400-18-01-.03>.
15. Maintain records for results of the last two impressed current system inspections <TR 0400-18-01-.03(2)(b)>.
16. Ensure all records of repairs made on UST systems are maintained for the operational life of the system <TR 0400-18-01-.03(4)(f)>.
17. Ensure that approved Spill and Overfill Protection devices are in place and fully operational for the tanks <TR 0400-18-01-.03(1)(a) and (b)>.
18. Ensure that personnel having primary and daily responsibility for onsite UST operation and maintenance (Class A and B Operators) received specified UST training (Energy Policy Act of 2005 Title XV-Ethanol and Motor Fuels, Subtitle B-Underground Storage Tank Compliance Act, Sect. 9010 - Certified Operator Training) <TR 0400-18-01-.16>.
19. Ensure that personnel having primary responsibility for addressing emergencies presented by spills or releases (Class C Operators) have received specified training <TR 0400-18-01-.16>.
20. Ensure the Class A and B operator information is up to date and any changes are reported to the Division within 30 days <TR 0400-18-01-.03(1)(h)>.
21. Ensure that Monthly Spill Bucket Inspection Log is completed after visually inspecting each spill bucket at the facility once each month <TR 0400-18-01-.02(3)(b)3>.
22. Ensure that the Quarterly Dispenser Inspection Log (every three (3) months) is completed after a visual inspection is performed on each petroleum dispenser for petroleum releases, including seeps and drips <TR 0400-18-01-.04(1)(f)>.
23. Ensure the Impressed Current Cathodic Protection System 60-Day Record of Rectifier Operation Inspection Log is completed after confirming that the rectifier was receiving power and is "turned-on." Also, record the output voltage, and amperage. <TR 0400-18-01-.02(4)(c)4>.

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24. Ensure there is a sign or instruction manual placed where the Class C Operator would be expected to see it during their normal course of work that includes:
- a. role in responding to spills and overfills
  - b. procedures for alarms, warnings, and response from the ATG
  - c. name and number of emergency contact
  - d. local emergency numbers
  - e. instruction to maintain a safe distance from potential hazards <TR 0400-18-01-.16(3)(c)>.

**B. UCOR Requirements for Management of ATG Results**

- 1. Ensure that following the reading, reporting, and filing of each daily ATG leak test result conforms to the UCOR K-1414 UST Operations Management of ATG Results, Compliance Requirements, and Contact Information guidelines that are maintained by the K-1414 Garage Supervisor (UCOR Requirement).
- 2. Ensure that the reporting of confirmed releases, suspected releases, hazard management issues, spills, and overfills conform to the UCOR K-1414 UST Operations Management of ATG Results, Compliance Requirements, and Contact Information guidelines (UCOR requirement).
- 3. Ensure that repair requirements conform to the UCOR K-1414 UST Operations Management of ATG Results, Compliance Requirements, and Contact Information guidelines including follow-up testing for tank and piping repair, piping repair pre-approval, and follow-up testing to the cathodic protected UST system (UCOR requirement).
- 4. Ensure that notification requirements conform to the UCOR K-1414 UST Operations Management of ATG Results, Compliance Requirements, and Contact Information guidelines including changes in ownership status, address, service, upgrading, or replacement of tanks and/or piping. The notification requirements also include any change in the Class A or Class B Operators (UCOR requirement).

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**Appendix L**  
**TEMPORARY PCB STORAGE REQUIREMENTS**  
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**A. Regulatory Requirements for Temporary PCB Storage**

1. Polychlorinated biphenyl (PCB) items may be stored temporarily in an area that does not comply with the requirements of paragraph (b) of 40 CFR 761.65 for up to thirty days from the date of their removal from service, provided that a notation is attached to the PCB Item or a PCB Container (containing the item) indicating the date the item was removed from service <40 CFR 761.65(c)(1)>.
2. PCB items ( $\geq 50$  ppm or from a source of  $\geq 50$  ppm) shall be labeled with a 6 × 6-in. PCB M<sub>L</sub> mark <40 CFR 761.40(a)(e) and (f)>. If the item is too small for the 6 × 6-in. mark, the PCB mark may be smaller (M<sub>s</sub>). (It is not necessary to mark individual PCB items placed in a storage container).(NOTE: The Toxic Substances and Control Act [TSCA] PCB regulations specify the use of two “Marks,” a large mark (ML) and a small mark (MS). A mark is defined as a legible mark applied by painting, an adhesive label, or any other method that meets the specified regulatory requirements for color, size and durability. Detailed information on markings is listed in Appendix T.)
3. PCB liquids shall be stored in PCB DOT-approved drums without removable heads (i.e., 1A1/X and 6HA1/X,Y) <40 CFR 761.65(c)(6)>.
4. PCB containers containing liquid PCBs at concentrations of >50 ppm must be added to the ETTP spill prevention control and countermeasure plan. <40 CFR 761.65 (c)(1)(iv)>
5. PCB solids shall be stored in PCB DOT-approved drums (i.e., 1A2/X and ST-5) <40 CFR 761.65(c)(6)>.
6. Containers shall be kept closed with top, ring, or bung seal except when adding or removing waste <40 CFR 761.65(c)(6)>.
7. PCB containers, articles, or items shall be inspected to ensure they are not leaking, and placed in an appropriate PCB DOT overpack or container if found to be leaking <40 CFR 761.65(c)(1)(ii)>.
8. PCB waste storage containers shall be marked with the date when the first waste is placed in the container or the date the waste is removed from service <40 CFR 761.65(c)(8)>.
9. PCB items shall be stored less than 30 days from the date PCB waste was first placed in the storage container or the date the waste was removed from service <40 CFR 761.65(c)(1)>.
10. PCB marks shall be placed on all facility entrances and waste storage areas where PCBs are present <40 CFR 761.40(a)(10) and 40 CFR 761.40(h)>.
11. Waste generators are required to fill out a Uniform Hazardous Waste Manifest <§761.207(a)> when transporting waste for disposal.  
  
**NOTE:** A Uniform Hazardous Waste Manifest is not required for PCB bulk product waste that is being sent for disposal in a landfill.
12. Waste must be shipped to disposal facility within nine months of generation start date <§761.219(a)(1)>.

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is “substantive” or “administrative”; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**TEMPORARY PCB STORAGE REQUIREMENTS**  
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**B. UCOR Requirements for Temporary PCB Storage**

1. PCB waste shall be stored on an impermeable or all weather surface that is free from water pooling or flooding (UCOR requirement).
2. The WMA Establishment Request (Form-2719) shall be completed for all PCB waste storage areas according to PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement). (**NOTE** - this registration is applicable to CERCLA projects.)
3. Containers shall be free from damage, excessive rust, or defects (UCOR requirement).
4. Items and containers shall be free from conflicting dates, markings and labels (UCOR requirement).
5. PCB temporary storage area boundaries shall be clearly marked with tape or ropes and pylons or other means and the required signage posted as recommended in Appendix T and according to PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
6. PCB temporary storage areas shall be inspected per the schedule noted in PROC-WM-2021, *UCOR Waste Management Areas*, and shall be documented using Form-2725, PCB 30-Day Temporary WMA Inspection (UCOR requirement).
7. Waste generators shall ensure that the TSDRF is a UCOR-approved facility (DIR-UCOR-510).
8. Waste generators shall ensure that UCN-2109 forms and certificates of disposal are submitted for entry into the appropriate waste tracking system (i.e., eMWaste) (UCOR requirement).
9. Waste generators shall ensure that UCN-2109 forms and shipping papers/records are maintained at the generating project for at least 3 years unless the project is terminated prior to 3 years. After 3 years or when a project is terminated, records must be sent to the UCOR Document Management Center for long-term record storage (UCOR requirement).
10. Empty, non-PCB contaminated containers shall be stored in the designated area for empty containers and shall be marked as "EMPTY" or with another descriptor identifying that the container is empty (refer to PROC-WM-2010 for additional requirements for managing empty containers) (UCOR requirement).
11. Empty, non-PCB contaminated containers shall be managed in a method to prevent accumulation of moisture or rainwater within the container (e.g., covers and lids properly closed, stored upside down) (UCOR requirement).

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**Appendix M**  
**ONE-YEAR PCB STORAGE REQUIREMENTS**  
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**A. Regulatory Requirements for One-Year PCB Storage**

Tennessee Rule 0400-12-01-.10(4)(a)6, *Prohibitions on Storage of Restricted Wastes* <40 CFR 268.50>, requires that liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm must be stored at a facility that meets the requirements of 40 CFR 761.65(b) and must be removed from storage and treated or disposed as required by this part within one year of the date when such wastes are first placed into storage <40 CFR 761.65(a)(1)>.

Operation of one-year PCB storage areas shall comply with the following:

1. PCB liquids shall be stored in PCB DOT-approved drums without removable heads (i.e., 1A1/X, 6HA1/Y) <40 CFR 761.65(c)(6)>.
2. PCB solids shall be stored in PCB DOT-approved drums (i.e., 1A2/XY, 6HA1/Y) <40 CFR 761.65(c)(6)>.
3. PCB items (>50 ppm or from a source of >50 ppm) shall be marked with a 6 × 6-in. PCB ML mark. **NOTE:** If the item is too small for the 6 × 6-in. ML mark, the PCB MS mark may be used <40 CFR 761.40(a)(e) and (f)>.

**NOTE:** Detailed information on markings is listed in Appendix T.

4. PCB waste storage containers shall be marked with the date when the first waste is placed in the container or the date the waste is removed from service <40 CFR 761.65(c)(8)>.
5. PCB items shall be inspected every 30 days or sooner, and inspections shall be documented <40 CFR 761.65(c)(5)>.
6. The PCB storage area shall provide adequate roof and walls to prevent rainfall from reaching stored items <40 CFR 761.65(b)(1)(i)>.

**NOTE:** Liquid or debris in secondary containment must be removed in a timely manner to prevent overflow and meet the secondary containment capacity requirements.

7. PCB storage areas shall have at least a 6-in. high continuous dike that provides secondary containment equal to at least twice the internal volume of the largest container, or 25% of the total internal volume of all containers stored, whichever is greater <40 CFR 761.65(b)(1)(ii)> unless the unit is permitted by a State authorized under section 3006 of RCRA <40 CFR 761(b)(2)(iii)>.
8. PCB storage areas shall be free of drain valves, floor drains, expansion joints, sewer lines or other openings that would permit release of liquids <40 CFR 761.65(b)(1)(iii)> unless the unit is permitted by a State authorized under section 3006 of RCRA <40 CFR 761(b)(2)(iii)>.
9. Floors and dikes of PCB storage areas shall be constructed of Portland cement, sealed concrete, plastic, or a continuous, smooth, non-porous surface that prevents or minimizes the penetration of PCBs <40 CFR 761.65(b)(1)(iv)> unless the unit is permitted by a State authorized under section 3006 of RCRA <40 CFR 761(b)(2)(iii)>.
10. The PCB storage area location shall be above the 100-year floodplain <40 CFR 761.65(b)(1)(v)>.

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11. Exterior entrances to the storage facility and Waste Storage Areas shall be marked with 6 × 6-in. yellow and black PCB ML mark. Place PCB ML mark on exterior surfaces of items so that they are easily read <40 CFR 761.40(a)(10) and 40 CFR 761.40(h)>.
12. The diked area shall be free of standing water <40 CFR 761.65(b)(1)(i)>.
13. PCB containers shall be securely closed with top, ring, or bung seals (except when adding or removing waste) <40 CFR 761.65(c)(6)>.
14. Waste generators are required to fill out a Uniform Hazardous Waste Manifest <§761.207(a)>.

**NOTE:** A Uniform Hazardous Waste Manifest is not required for PCB bulk product waste that is being sent for disposal in a landfill.
15. Waste must be shipped to disposal facility within nine months of generation start date <§761.219(a)(1)>.

**B. UCOR Requirements for One-Year PCB Storage**

1. PCB waste shall be stored in areas designated as PCB One-Year Storage Areas. The WMA Establishment Request (Form-2719) shall be completed for all PCB One-Year Storage Areas according to PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement). (NOTE: This registration is also applicable to CERCLA projects.)
2. PCB containers shall be free from damage, excessive rust, or defects (UCOR requirement).
3. PCB items and containers shall be free from conflicting labels and dates (UCOR requirement).
4. Spill control equipment shall be readily available at or near the storage area (UCOR requirement).
5. The PCB One-Year Storage Area boundaries shall be clearly defined with painted lines or tape on the floor, or ropes and pylons or other means and marked as recommended in Appendix T and according to PROC-WM-2021, *UCOR Waste Management Areas* (UCOR requirement).
6. The PCB One-Year Storage Area inspection shall be documented according to PROC-WM-2021, *UCOR Waste Management Areas*, using Form-2726, PCB 1-Year WMA Inspection (UCOR requirement).
7. Waste generators shall ensure that the TSDRF is a UCOR-approved facility (DIR-UCOR-510).
8. Waste generators shall ensure that UCN-2109 forms and certificates of disposal are submitted for entry into the appropriate waste tracking system (i.e., eMWaste) (UCOR requirement).

**NOTE:** Certificates of disposal are not required for PCB bulk product waste sent for disposal in a landfill.

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**Appendix M**  
**ONE-YEAR PCB STORAGE REQUIREMENTS**  
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9. Waste generators shall ensure that UCN-2109 forms and shipping papers/records are maintained at the generating project for at least 3 years unless the project is terminated prior to 3 years. After 3 years or when a project is terminated, records must be sent to the UCOR Document Management Center for long-term record storage (UCOR requirement).
10. Empty, non-PCB contaminated containers shall be stored in the designated area for empties and shall be marked as "EMPTY" or with another descriptor identifying that the container is empty (refer to PROC-WM-2010 for additional requirements for managing empty containers) (UCOR requirement).
11. Empty, non-PCB contaminated containers shall be managed in a method to prevent accumulation of moisture or rainwater within the container (e.g., covers and lids properly closed, stored upside down) (UCOR requirement).

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**Appendix N**  
**GUIDANCE FOR DECONTAMINATION OF EQUIPMENT**  
**CONTAMINATED WITH PCB OIL, PCB REMEDIATION WASTE, OR PCB BULK PRODUCT**  
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**NOTE:** This appendix is strictly guidance. Project EC&P Leads have the authority to make necessary adjustments to this guidance to accommodate project specific work scope and needs.

UCOR and subcontractor personnel must ensure that movable equipment (e.g., tools, heavy equipment, haul trucks) that is PCB-contaminated that is going to be released to the public or used in a non PCB-contaminated process area is PCB decontaminated. The PCB decontamination of equipment for reuse or release to the public must be documented by use of the PCB - Contaminated Equipment Release Form (Form-2239). Because each situation is dependent upon the type of equipment, type of PCB waste, etc., the following sections should be used by projects as guidelines for equipment that needs to be decontaminated in conjunction with guidance provided by the project EC&P Lead or designee.

Equipment that has been PCB-contaminated can be reused in a PCB-contaminated environment without being decontaminated.

All equipment must be labeled with a PCB M<sub>L</sub> or M<sub>S</sub> mark with the words “FOR REUSE” until PCB-decontaminated. If labeling is not feasible, contact the project EC&P Lead or designee for guidance.

**A. PCB Remediation Waste and/or PCB Oil Contamination**

**NOTE:** If liners or super sacks are used as a barrier or to containerize waste during transportation, decontamination is not required as long as a failure of the liner or super sack has not occurred. The bed of the dump truck must be inspected thoroughly to ensure that no breach has occurred and that no materials are present.

- PCB decontamination of moveable equipment shall be completed with a terpene hydrocarbon solvent (e.g., CitriKleen) or other solvent as specified in work control documents. The project EC&P Lead or designee can provide the names of other approved terpene hydrocarbons if CitriKleen is not available.
- Methods for decontamination may include:
  - a. Swabbing surfaces with solvent
  - b. Double washing and rinsing, contact the project EC&P Lead or designee when using this method.
- The decontamination process should occur within the area of PCB contamination, designated decontamination area, or other area as approved by the project EC&P Lead or designee and work control process.
- PCB decontamination must be performed in a manner that prevents the spread of PCB-contamination.
- Soil/mud/wood and debris must be removed prior to the decontamination process. If pressure washing is used, runoff must be controlled.
- Mops, rags, wipes, and/or towels should be used to swab the terpene hydrocarbon solvent selected for use onto the item to be decontaminated. To prevent PCB contamination of the clean solvent, the swabbing material should not be dipped into the solvent. An example method is to spray the solvent onto the swabbing material being used.
- Avoid saturating the swabbing material to prevent generation of free liquids.

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**B. PCB Remediation Waste Rubber Tires/Tracks Contamination**

EPA Region 4 in consultation with EPA Headquarters staff has provided regulatory guidance which indicates that rubber tires/tracks can be decontaminated in accordance with the moveable equipment standards (Subpart D 40 CFR 761.79(c)(2)). Although not required by regulations, EPA recommends that verification sampling be conducted to mitigate the risk of releasing PCB-contaminated rubber tires into commerce due to the porous nature of rubber.

The following four options are provided regarding the management of rubber tires/tracks that are used in a PCB Remediation Waste contaminated area:

*Option 1:*

Protect the rubber tires/tracks from the potential of coming into contact with areas contaminated with PCBs by using engineering controls. Examples: Covering the tires/tracks prior to entering the area contaminated with PCBs with herculite or other similar materials; covering the surface area contaminated with PCBs with herculite, plastic, or crush and run (crusher run) gravel.

*Option 2:*

If a project has equipment with tires/tracks that come into contact with an area contaminated with PCBs and when the task/project is completed, the tires/tracks can be removed, managed, and disposed of as PCB remediation waste. Equipment used in areas contaminated with PCBs will be marked with a PCB M<sub>L</sub> mark until the tires/tracks have been removed and disposed and the equipment decontaminated.

*Option 3:*

The tires/tracks may be removed from the equipment and stored for re-use on another project where PCB contamination is an issue. The tires/tracks should be stored in a manner to prevent the spread of PCB contamination. The tires/tracks should be stored indoors if possible. Tires/tracks will be wrapped in plastic and then covered with plastic to avoid spreading PCB contamination. The area must then be marked and identified as PCB-contaminated equipment stored for re-use. The tires/tracks can be stored in containers such as drums or B-25 box. The containers must be marked with a PCB mark and identified as PCB-contaminated equipment stored for re-use. If containers are used, they should be lined with plastic to prevent the tires/tracks from coming into contact with the contaminated tires/tracks.

*Option 4:*

The tires/tracks can be decontaminated by swabbing the tire/track surface with CitriKleen. An approved solvent such as diesel fuel, kerosene, Citrikleen, Big Orange or other terpene hydrocarbon cleaning agent approved by the project EC&P Lead must be used to decontaminate the tires/tracks. Any mud/soil/wood or debris shall be removed from the tires/tracks prior to the decontamination step. Equipment used in areas contaminated with PCBs will be marked with a PCB M<sub>L</sub> mark until the tires/tracks are decontaminated and wipe sample analytical results are verified at levels  $\leq 10 \mu\text{g}/100 \text{ cm}^2$ .

**Verification Wipe Sampling**

If rubber tires/tracks are to be released for re-use, verification sampling must occur by using wipes samples of the tires/tracks to confirm that the decontamination of the tires/tracks has been effective and to ensure contamination levels are below release limits.

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If the tires cannot be decontaminated to  $\leq 10 \mu\text{g}/100 \text{ cm}^2$ , then the tires must either go through the decontamination and sampling process again or be disposed of as PCB remediation waste. It is not acceptable to skip the decontamination step and proceed directly to the verification wipe sampling step.

The number of samples to be collected will be determined based on general guidance in Subpart P section 40 CFR 761.302. The total surface area of the tires/tracks that potentially came into contact with the areas contaminated with PCBs is calculated when determining the number of samples to be collected.

The tires/tracks must be decontaminated with verification sampling results at levels  $\leq 10 \mu\text{g}/100 \text{ cm}^2$  confirming the effectiveness of the decontamination step. The PCB  $M_L$  mark can be removed from the equipment/tires after decontamination and verified sampling actions are completed.

Table 1 provides guidance on the number of wipe samples to be collected based upon the surface area of the tires/tracks to be released for each piece of equipment with rubber tires/tracks.

Table 1: Verification Wipe Sampling per Piece of Equipment

Total surface area of all tires/tracks, $\text{m}^2$	Number of wipe samples
Less than 1.0 $\text{m}^2$	1
1.0 to less than 2.0 $\text{m}^2$	2
2.0 to less than 30.0 $\text{m}^2$	3
30.0 to less than 40.0 $\text{m}^2$	4
40 $\text{m}^2$ or greater	Contact EC&P Lead for direction

The wipe samples collected will be from a  $100 \text{ cm}^2$  area with confirmatory sample results for all locations at  $\leq 10 \mu\text{g}/100 \text{ cm}^2$  for the equipment to be released.

Records and documentation of the verification sampling results are to be maintained in the project files, and once the project is complete, the records should be sent to the UCOR Document Management Center for long-term records storage.

*Example Calculations for Determining the Number of Wipe Samples to be Collected:*

**Example 1:**

A large dump truck with 14 tires:  
The tire diameter is  $\sim 1.1 \text{ m}$   
The circumference would be  $1.1 \text{ m} \times 3.14 = 3.5 \text{ m}$   
The width of the tire is  $\sim 0.3 \text{ m}$   
The circumference  $\times$  width = total surface area  
 $3.5 \text{ m} \times 0.3 \text{ m} = 1.05 \text{ m}^2$  per tire.

A dump truck with 14 tires would have a total surface area of  $14.7 \text{ m}^2$  and would require 3 verification samples for the release of the equipment.

Representative sampling locations would be from  $100 \text{ cm}^2$  wipe samples of the ground surface contact area of the tire (i.e. not the side wall) from a front, middle, and rear tire. One of the samples should be collected from a tire on the opposite side of the vehicle from the other two tire samples.

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The sample results for all three locations must be  $\leq 10\mu\text{g}/100\text{cm}^2$ , or the decontamination process on all the tires will have to be repeated.

Example 2:

A forklift with 4 tires:  
The tire diameter is ~0.5 m  
The circumference would be  $0.5 \text{ m} \times 3.14 = 1.6 \text{ m}$   
The width of the tire is ~ 0.2 m  
The circumference x width = total surface area  
 $1.6 \text{ m} \times 0.2 \text{ m} = 0.32 \text{ m}^2$  per tire.

A forklift with 4 tires would have a total surface area of  $1.28 \text{ m}^2$  and would require 2 verification samples for the release of the tires.

Representative sampling locations would be  $100 \text{ cm}^2$  wipe samples of the ground surface contact area of the tire (i.e. not the side wall) from a front and rear tire on the opposite sides of the forklift.

The sample results for both locations must be  $\leq 10\mu\text{g}/100\text{cm}^2$ , or the decontamination process on all the tires will have to be repeated.

**C. PCB Bulk Product Waste Contamination**

- The decontamination process should occur within the area of PCB contamination, designated decontamination area, or other area as approved by the EC&P Lead or designee and work control process.
- PCB decontamination must be performed in a manner that prevents the spread of contamination.
- Soil/mud and debris must be removed prior to decontamination. If pressure washing is used, runoff must be controlled.

**NOTE:** Because PCB Bulk Product Waste decontamination is visually verified, verification sampling is not required.

- PCB Bulk Product Waste (e.g., paint chips) must be physically removed from the equipment by methods such as brushing, wiping, or sweeping until all visible traces of the waste have been removed.

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**Appendix O**  
**LINES OF INQUIRY FOR**  
**EC&P MANAGEMENT OR SELF-ASSESSMENTS AND INDEPENDENT ASSESSMENTS**  
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**A. Project and Subcontractor EC&P Management or Self-Assessments**

The scope of EC&P management or self-assessments performed by projects and subcontractors should be tailored to the specific work scope and environmental compliance vulnerabilities.

**Suggested Lines of Inquiry**

1. Verify that requirements specified in applicable sections of the UCOR EC&P PD *responsibility matrix* are currently in compliance;
2. Verify that all required environmental *reports and submittals* listed in Exhibit I are submitted on schedule (include a list of reports with schedules to demonstrate compliance);
3. Verify that all *environmental records* are maintained in a current file system and readily accessible for review by UCOR and regulatory authorities, as required;
4. Verify that *waste management areas* (satellite accumulation areas, 90-Day accumulation areas, permitted storage areas) are managed and maintained in compliance with state and Federal regulatory requirements, as evidenced by records of periodic inspections and checklists;
5. Verify that *environmental plans and procedures* are current with applicable TDEC, EPA, DOE and UCOR regulatory and program plan revisions;
6. Verify that environmental *permit performance criteria* and requirements are being appropriately implemented and monitored as evidenced by regular reports and inspections;
7. Verify that *contingency and emergency response plans* are kept current according to the scope of work, and are current with correct names and phone numbers;
8. Verify that required *environmental training* for all employees is up to date;
9. Verify that all operational environmental *inspection reports and checklists* include applicable permit requirements such as:
  - a. the date and time the inspection was performed and the name of the person completing the inspection,
  - b. the identity of the facility or location being inspected and the Facility Manager or equivalent (UCOR requirement),
  - c. the date the inspection report was reviewed by the inspector's supervisor and the reviewer's signature (UCOR requirement),
  - d. a notation of the observations made, and
  - e. the date and nature of any repairs or other remedial actions.

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**LINES OF INQUIRY FOR**  
**EC&P MANAGEMENT ASSESSMENTS AND INDEPENDENT ASSESSMENTS**  
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10. Verify that a system is in place to *track environmental corrective actions* (i.e., findings, observations, and non-conformances) noted during operational inspections, including monthly status reports.

Comprehensive lines of inquiry have been created for each regulatory area that can be used to develop the management assessment lines of inquiry and can be found on the UCOR EMS internal website.

**B. UCOR EC&P Independent Assessments**

UCOR will perform periodic independent assessments of self-performed project and subcontractor activities using the suggested lines on inquiry previously mentioned. Additional lines of inquiry may be added, as appropriate, to the specific project or subcontract scope of work.

**UCOR EC&P Independent Assessment Report**

UCOR independent oversight assessment final reports for EC&P assessments shall be documented in accordance with PROC-PQ-1401, *Independent Assessment*, and transmitted, after approval of the Quality Assurance Program Manager, to the appropriate EC&P responsible manager for distribution. Final documents are submitted to both the Issues Management Program and Document Management Control for archiving.

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**Appendix P**  
**POLLUTION PREVENTION AND WASTE MINIMIZATION REQUIREMENTS**  
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- A.** The key regulatory drivers directing the goals and activities of the Oak Ridge Environmental Management and Pollution Prevention/Waste Minimization Program are:
1. The *Pollution Prevention Act of 1990* is the national legislation that establishes pollution prevention policy.
  2. The *Resource Conservation and Recovery Act* directs Federal agencies to establish Affirmative Procurement Programs for acquiring recycled content products designated by EPA.
  3. *Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management*, replaces the Greening the Government Series of Executive Orders (13101, 13123, 13148, 13149). This order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxic reductions, recycling, renewable energy, sustainable buildings, electronics stewardship, fleets, and water conservation. In addition, the order requires widespread use of Environmental Management Systems as the framework in which to manage and continually improve these sustainable practices.
  4. *Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance*. This Order builds on Executive Order 13423 in the areas of sustainability and energy efficiency with regard to toxic waste reductions, recycling, and greenhouse gas emission reductions.
  5. *DOE Order 436.1, Departmental Sustainability*, establishes requirements, authorities, and *responsibilities* for assuring DOE compliance with applicable federal, state, and local environmental laws and regulations, Executive Orders, and internal DOE policies, ensures sustainability and GHG reductions are factored into all DOE management decisions and ensures DOE achieves sustainability goals established in its Strategic Sustainability Performance Plan.
  6. *Tennessee Hazardous Waste Reduction Act of 1990* establishes the policy of the state to prevent or reduce the generation of hazardous waste and establishes the requirements for planning and reporting by waste generators.
- B.** Additional resources for information and/or reporting requirements in conjunction with the pollution prevention and waste minimization programs would include but not necessarily be limited to:
1. *Pollution Prevention and Waste Minimization Program Plan for the East Tennessee Technology Park, Oak Ridge, Tennessee* (UCOR-4127).
  2. The DOE Pollution Prevention, Waste Reduction, and Recycling website.

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**Appendix Q**  
**SPILL PREVENTION, CONTROL, AND COUNTERMEASURES REQUIREMENTS**  
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**A. Reporting Spills of Oil and Hazardous Substances**

Any UCOR or subcontractor employee who identifies a spill of any type of oil or hazardous substance at a U.S. Department of Energy (DOE) facility in Oak Ridge must immediately contact their supervisor or facility manager. All spills require prompt notification to the PSS or LSS, as stated in the SPCC plan for each site. The on-duty PSS or LSS will determine the appropriate spill response and make any required notifications.

1. East Tennessee Technology Park (ETTP) – PSS (574-3282)
2. Y-12 National Security Complex – PSS (574-7172)
3. Oak Ridge National Laboratory – LSS (574-6606)

**B. SPCC Rule**

The East Tennessee Technology Park (ETTP), Y-12 National Security Complex (Y-12), and Oak Ridge National Laboratory (ORNL) generate industrial wastewaters and are regulated by several aspects of the Clean Water Act (CWA). Section 311, “Oil and Hazardous Substance Liability,” of the CWA regulates the discharges of oils or petroleum products to waters of the United States. As required by the CWA, the U.S. Environmental Protection Agency (EPA) published the Oil Pollution Prevention regulations <40 CFR 112> in the Federal Register in December 1973. A major revision of 40 CFR 112 was published in the Federal Register as a Final Rule on July 17, 2002. Additional amendments were published in the Federal Register on December 26, 2006, December 5, 2008, and November 13, 2009. These regulations were established to prevent discharges of oil in quantities that may be harmful, as defined in 40 CFR 110, into or upon the navigable waters or adjoining shorelines of the United States by establishing requirements for owners or operators of facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products.

Oil pollution prevention regulations contained in 40 CFR 112 do not apply to any facility which is otherwise subject to the jurisdiction of EPA but meets both of the following requirements: the completely buried storage capacity of the facility is 42,000 gal or less of oil, and the aggregate aboveground storage capacity of the facility is 1,320 gal or less of oil (only containers of oil with a capacity of 55 gal or greater are counted <40 CFR 112>).

The ETTP, Y-12, and ORNL are identified as non-transportation-related onshore facilities engaged in the storing, transferring, use, and consumption of oils and oil products. Because of their proximity to waters of the United States and the aggregate aboveground storage capacity of each facility greatly exceeding 1,320 gal of oil, the three sites could reasonably be expected to discharge oil in harmful quantities into or upon the navigable waters of the United States. Each facility is therefore subject to the SPCC Rule and must maintain a site-specific SPCC Plan <40 CFR 112>. UCOR maintains a separate SPCC plan for the Oak Ridge Reservation (ORR) Landfills.

**C. SPCC Plans for ORR**

1. *Spill Prevention, Control, and Countermeasure Plan for the East Tennessee Technology Park and the Environmental Management Waste Management Facility, Oak Ridge, Tennessee* (UCOR-4870/latest revision)
2. *SPCC Plan for the U.S. DOE Y-12 National Security Complex, Oak Ridge, Tennessee* (Y/SUB/02-001091/latest revision)

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3. *SPCC Plan Oak Ridge National Laboratory, (ORNL/ECS-93-10/latest revision)*
4. *Spill Prevention, Control, and Countermeasure Plan for the Oak Ridge Reservation Landfills, Oak Ridge, Tennessee (UCOR-5079/latest revision).*

**D. Important Definitions**

1. *Bulk storage container* means any container used to store oil; oil-filled electrical, operating, and manufacturing equipment is not a bulk storage container <40 CFR 112.2>.
2. *Discharge* includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under Section 402 of the CWA or authorized by a permit issued under section 13 of the River and Harbor Act of 1899 <40 CFR 112.2>.
3. *Oil* means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil <40 CFR 112.2>.
4. *Oil-handling personnel* is to be interpreted according to industry standards, but includes employees engaged in the operation and maintenance of oil storage containers or the operation of equipment related to storage containers and emergency response personnel <40 CFR 112, Preamble, Section V, 112.7(f); FR Vol. 67, No. 137, page 47108>.
5. *Motive power container* means vehicle fuel tanks and other on-board bulk oil storage containers used primarily for motive power; a motive power container may provide fuel for propulsion of the vehicle or be used solely to facilitate operation of the vehicle, such as lubrication of moving parts or operation of onboard hydraulic equipment <40 CFR 112.2>.

**E. SPCC Rule Exemptions**

1. Any container with a storage capacity of less than 55 gal of oil <40 CFR 112.1(d)(5)>.
2. Completely buried tanks and connected underground piping/equipment that are subject to all technical requirements under the Underground Storage Tank rules <40 CFR 280 or 281>, except tanks must still be shown on the SPCC plan facility diagram <40 CFR 112.1(d)(4)>.
3. A facility or part thereof used exclusively for wastewater treatment and not used to satisfy any requirement of the SPCC Rule (does not include production, recovery, or recycling of oil) <40 CFR 112.1(d)(6)>.
4. "Permanently closed" containers as defined in 40 CFR 112.2 <40 CFR 112.1(d)(2)>.
5. Vehicle fuel tanks and other on-board oil storage containers used for motive power <FR Volume 71, No. 247, December 26, 2006>.

**NOTE:** Liquid or debris in secondary containment must be removed in a timely manner to prevent overflow and meet the secondary containment capacity requirements.

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6. Mobile refuelers and non-transportation-related tank trucks are exempted from specifically sized secondary containment requirements for bulk storage containers described in Section 112.8(c)(2) and (11) and 112.12(c)(2) and (11), but are still subject to the general secondary containment requirements in Section 112.7(c) <FR Volume 71, No. 247, December 26, 2006; FR Volume 73, No. 235, December 5, 2008>.

**F. Potential Oil Spill Sources**

1. Bulk storage containers
2. Facility transfer operations, including piping and valves
3. Transfer stations (and related vehicles)
4. Storage areas with portable containers, including 55-gallon drums
5. Oil-filled electrical, operating, and manufacturing equipment
6. Temporary PCB storage areas
7. Motive power (vehicle fuel and lubricants)
8. Outdoor equipment maintenance areas

**G. SPCC Operational and Reporting Regulations**

1. Report additional information within 60 days to the EPA Regional Administrator whenever a SPCC facility has discharged into or upon the navigable waters of the United States or adjoining shorelines more than 1000 gal of oil in a single discharge or discharged more than 42 gal of oil in each of two discharges within any 12 month period <40 CFR 112.4(a)>.
2. Obtain a Professional Engineer's certification, if applicable for any technical amendments to a SPCC Plan; this certification is not required for non-technical amendments like changes to phone numbers and names <40 CFR 112.5(c)>.
3. Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in 40 CFR 112.1(b), at a minimum, using one of the following prevention systems or its equivalent for onshore facilities: dikes, berms, or retaining walls; curbing or drip pans; sumps and collection systems; culverting, gutters, or other drainage systems; weirs, booms, or other barriers; spill diversion ponds; retention ponds; or sorbent materials <40 CFR 112.7(c)>.
4. Conduct inspections and tests required by the SPCC Rule in accordance with written procedures; keep the written procedures and a record of the inspections and tests, signed by an appropriate supervisor or inspector, with the SPCC Plan for a period of at least three years <40 CFR 112.7(e)>.
5. Train all oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and the contents of the facility SPCC Plan <40 CFR 112.7(f)(1)>.
6. Schedule and conduct discharge prevention briefings for all oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility; such briefings must highlight and describe known discharges or failures, malfunctioning components, and any recently developed precautionary measures <40 CFR 112.7(f)(3)>.

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7. Describe in the SPCC plan how to secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges <40 CFR 112.7(g)>.
  8. Use a quick drainage system for tank car or tank truck loading and unloading areas where the drainage does not flow into a catchment basin or treatment facility designed to handle discharges <40 CFR 112.7(h)(1)>.
  9. Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of oil transfer lines <40 CFR 112.7(h)(2)>.
  10. Inspect for discharges the lowermost drain and all outlets of a tank car or tank truck prior to its filling and departure, and if necessary, make adjustments to prevent liquid discharge while in transit <40 CFR 112.7(h)(3)>.
  11. Evaluate field-constructed aboveground storage containers undergoing repair, alteration, reconstruction, or change in service, and containers that have already had an actual discharge or failure, for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action <40 CFR 112.7(i)>.
  12. Restrain drainage from diked storage areas, using valves of manual, open-and-closed design; dikes may be emptied by manually activated pumps or ejectors after verifying that no oil will be discharged <40 CFR 112.8(b)(1-2)>.
  13. Design facility drainage systems from undiked areas with a potential for a discharge to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility, or equip the final discharge of all ditches inside the facility with a diversion system that would retain the oil <40 CFR 112.8(b)(3-4)>.
  14. Engineer facility drainage systems to prevent a discharge in case there is an equipment failure or human error at the facility; for example, when multiple continuous treatment units are used for pumped drainage waters, provide two "lift" pumps <40 CFR 112.8(b)(5)>.
  15. Use bulk storage containers that have material and construction compatible with the oil being stored and the conditions of storage such as pressure and temperature <40 CFR 112.8(c)(1)>.
- NOTE:** Liquid or debris in secondary containment must be removed in a timely manner to prevent overflow and meet the secondary containment capacity requirements.
16. Construct all bulk storage container installations so that secondary containment is provided for the entire capacity of the largest single container, with sufficient freeboard to contain precipitation (note exception for mobile refuelers and other non-transportation-related tank trucks) <40 CFR 112.8(c)(2)>.

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17. Drain uncontaminated rainwater from a diked area into a storm drain or water body, bypassing the facility treatment system, only if the bypass valve is normally sealed closed, the rainwater is inspected, the bypass valve is opened and then resealed under responsible supervision, and adequate records of such events are kept <40 CFR 112.8(c)(3)>.
18. Protect any completely buried metallic storage tank installed on or after January 10, 1974, from corrosion by coatings or cathodic protection compatible with local soil conditions, and perform regular leak tests of the tank <40 CFR 112.8(c)(4)>.
19. Use partially buried or bunkered metallic tanks for oil storage only if the buried section of the tank is protected from corrosion by coatings or cathodic protection compatible with local soil conditions <40 CFR 112.8(c)(5)>.
20. Test or inspect each aboveground bulk storage container for integrity on a regular schedule, and when material repairs are made. Examples of integrity tests include, but are not limited to: visual inspection, hydrostatic testing, ultrasonic testing, radiographic testing, or acoustic emissions testing. Include an inspection of the tank's supports and foundations; keep comparison records. At ETTP, an industry standard published by the Steel Tank Institute (STI) SP001, 5<sup>th</sup> Edition has been selected as a basis for the inspection program. Inspections of bulk storage containers at ETTP should comply with this standard <40 CFR 112.8(c)(6)>.
21. Engineer or update each bulk storage container installation in accordance with good engineering practice to avoid discharges, providing at least one of the following devices: high liquid level alarm or pump cutoff device, direct audible or code signal between container gauger and pumping station, or fast response liquid level determination such as direct vision gauge. Regularly test liquid level sensing devices to ensure proper operation <40 CFR 112.8(c)(8)>.
22. Promptly correct visible discharges which result in a loss of oil from a bulk storage container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts; promptly remove any accumulations of oil in diked areas <40 CFR 112.8(c)(10)>.
 

**NOTE:** Liquid or debris in secondary containment must be removed in a timely manner to prevent overflow and meet the secondary containment capacity requirements.
23. Position or locate mobile or portable oil storage containers to prevent a discharge, furnishing secondary containment sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation (note exception for mobile refuelers and other non-transportation-related tank trucks) <40 CFR 112.8(c)(11)>.
24. Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating and cathodic protection, or otherwise satisfy the corrosion protection provisions for piping in 40 CFR 280 or 281 <40 CFR 112.8(d)(1)>.
25. Cap or blank-flange terminal connection at transfer point when piping is not in service or in standby service for an extended time <40 CFR 112.8(d)(2)>.
26. Design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction <40 CFR 112.8(d)(3)>.

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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27. Inspect on a regular basis all aboveground valves, piping, and appurtenances, assessing the general condition of items; also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement <40 CFR 112.8(d)(4)>.
28. Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations <40 CFR 112.8(d)(5)>.

**H. SPCC and Storm Water Pollution Prevention (SWPP) UCOR Requirements**

1. Protect raw materials and new supplies that could adversely affect storm water by storing them under a roof or cover (UCOR requirement).
2. Provide and maintain spill control equipment in areas where liquids are loaded or unloaded (i.e., docks and transfer stations) (UCOR requirement).
3. Conduct routine inspections and look for stains or signs of leaks in areas that could be exposed to storm water (UCOR requirement).
4. To the extent possible, refrain from parking vehicles or equipment near storm drains, creeks, rivers or reservoirs (UCOR requirement).
5. Ensure that all equipment is properly operated and maintained (UCOR requirement).
6. Follow general best management practice (BMP) plans for tasks such as housekeeping and comply with facility-specific BMP plans, as applicable (UCOR requirement).
7. Institute engineering control measures such as plugging of floor drains in storage areas.
8. If applicable, comply with transportation-related spill prevention and response requirements as specified by the U.S. Department of Transportation in 49 CFR 130 for tanker vehicles with capacities of 3500 gal or more (UCOR requirement).
9. Practice pollution prevention/waste minimization when using liquid products and when managing liquid waste (UCOR requirement).

**I. SPCC Specification Requirements for Oil-powered Generators**

**NOTE:** In addition to SPCC requirements, certain CAA requirements may be applicable. See Appendix C-3, Reciprocating Internal Combustion Engines (RICE).

Oil-powered generators are commonly referred to as “gen-sets” and are a combination of oil-filled operational equipment and a bulk oil storage container that typically holds diesel fuel to power the generator. Bulk oil storage containers with a capacity  $\geq$  55 gallons are subject to SPCC requirements.

1. Provide sized secondary containment for the bulk storage container either by using a double-walled tank for the container or by providing secondary containment for the entire capacity of the container, with sufficient freeboard to contain precipitation <40 CFR 112.8(c)(8)>.

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2. Provide at least one of the following devices: high liquid level alarm or pump cutoff device, direct audible or code signal communication between container gauger and pumping station, or fast response system for liquid level such as a direct vision gauge with person present to monitor gauge and overall filling <40 CFR 112.8(c)(8)>.
  
3. Ensure that the generator fuel tank conforms with any applicable more stringent State rules, regulations and guidelines (e.g., State fire codes for tank venting) <40 CFR 112.7(j)>.

NOTE: For projects being performed pursuant to CERCLA, certain requirements may not be applicable depending on whether the requirement is "substantive" or "administrative"; ARARs should be evaluated for applicability under CERCLA authorized activities.

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**A. Resource Conservation and Recovery Act (RCRA) Hazardous Waste**

1. Requires Uniform Hazardous Waste Manifest <TR 0400-12-01-.03(3)(a)>.
2. Land Disposal Restrictions (LDR) Notification shall accompany manifest on initial shipment <TR 0400-12-01-.10(1)(g)>.

**NOTE:** A specific format is not required for LDR notification forms, only that the required information is present. UCOR has LDR forms that can assist project with ensuring the required information is submitted (Form-2316, Land Disposal Restrictions Notification and Certification Form; Form-2315, F039 or Underlying Hazardous Constituents Form, and Form-2889, Debris Contaminated with Listed Waste Hazardous Constituent Form).
3. The generator must sign, have transporter sign, and retain one copy of the manifest. Give the transporter the remaining copies <TR 0400-12-01-.03(3)(d)>.
4. Contact disposal site to determine status of waste if signed manifest has not been received within 35 days <TR 0400-12-01-.03(5)(c)1(i)>.
5. Submit an exception report to Tennessee Department of Environment and Conservation (TDEC) if the signed manifest has not been received within 45 days <TR 0400-12-01-.03(5)(c)1(ii)>.
6. Hazardous waste transporter must have a valid State of Tennessee issued Transporter Permit in the truck at the time of the hazardous waste pickup. The hazardous waste manifest must include the correct Transporter Permit number <TR 0400-12-01-.03(2)(d)>.
7. 7. Contact disposal site to determine status of disposal if Certificate of Disposal has not been received within 12 months from the date of shipment (UCOR requirement).
8. Retain a copy of required shipping paperwork (manifest, exception reports) for three years after received from the designated facility which received the waste <TR 0400-12-01-.03(5)(a) and (c)>.

**B. RCRA Universal Waste**

1. Generator shall utilize some form of shipping paper, such as a Bill of Lading, that identifies the name and address of destination facility, quantity of each type of universal waste, and the date the shipment left the facility <TR 0400-12-01-.12(3)(j)2>.
2. Retain a copy of the shipping papers for three years after the date of the shipment <TR 0400-12-01-.12(j)(3)>.

**C. PCB Waste**

1. Must be shipped to disposal facility within nine months of generation start date <§761.219(a)(1)> for non-CERCLA projects.
2. Requires Uniform Hazardous Waste Manifest <§761.207(a)>.

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3. Each manifest (or addendum to the manifest) shall list each container's unique number, type of PCB waste (e.g., soil, debris, small capacitors), the generation start date, and weight in kilograms of the PCB waste contained <§761.207(a)(2)>.
    - a. CERCLA projects that generate PCB regulated waste must follow the ARARs specified by that project. Most ARARs require a PCB out-of-service date on the container once it is generated and stored in the CERCLA "onsite" waste staging area. The day the container is to be shipped offsite from the CERCLA "onsite" waste staging area; the PCB out-of-service date on the container is to be changed to match the shipping date on the manifest. The PCB out-of-service date for the container(s) on all shipping paper work (i.e., Continuation Pages) should match the manifest shipping date.
  4. The generator must sign, have transporter sign, and retain one copy of the manifest. Give the transporter the remaining copies <§761.210(a) and (b)>.
  5. Contact disposal site to determine status of waste if signed manifest has not been received within 35 days <§761.217(a)(1)>.
  6. Submit an exception report to the Environmental Protection Agency (EPA) if signed manifest has not been received within 45 days <§761.217(a)(2)>.
  7. Submit an exception report to EPA if a Certificate of Disposal has not been received within 13 months of the accumulation start date <§761.219(a)(2)>.
- NOTE:** Exception reporting is not required for PCB/radioactive waste <§761.219(d)>.
8. The generator must retain the required shipping documents (manifest, Certificate of Disposal, exception reports) for three years after the facility ceases storing PCBs or PCB items <§761.210(e)(4) and 761.218(d)(1) and §761.180(a)>.

**D. PCB Bulk Product Waste**

Notification Requirements for PCB Bulk Product Waste disposal in offsite solid waste landfills are as follows:

Any person disposing of PCB bulk product waste regulated under paragraph (b)(1) of this section at an offsite waste management facility not having a commercial PCB storage or disposal approval must provide written notice to the facility a minimum of 15 days in advance of the first shipment from the same disposal waste stream. The notice shall state that the PCB bulk product waste may include components containing PCBs at  $\geq 50$  ppm based on analysis of the waste in the shipment or application of a general knowledge of the waste stream (or similar material) which is known to contain PCBs at those levels, and that the PCB bulk product waste is known or presumed to leach  $< 10 \mu\text{g/L}$  PCBs. <§761.63(b)(4)(i)>

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Any person disposing of PCB bulk product waste regulated under paragraph (b)(2) of this section at an offsite waste management facility not having a commercial PCB storage or disposal approval must provide written notice to the facility a minimum of 15 days in advance of the first shipment from the same disposal waste stream and with each shipment thereafter. The notice shall state that the PCB bulk product waste may include components containing PCBs at  $\geq 50$  ppm based on analysis of the waste in the shipment or application of a general knowledge of the waste stream (or similar material) which is known to contain PCBs at those levels, and that the PCB bulk product waste is known or presumed to leach  $\geq 10$   $\mu\text{g/L}$  PCBs  $\langle \text{\$761.63(b)(4)(ii)} \rangle$ .

**E. Regulated Asbestos Waste**

1. Shipping papers (TDEC form CN-1054) shall include  $\langle \text{TR 1200-3-11-.02(2)(k)5(i)} \rangle$ :
  - a. name, address, and telephone number of the generator;
  - b. name and address of Tennessee Department of Air Pollution Control as the applicable regulatory authority;
  - c. quantity of asbestos in cubic meters or cubic yards;
  - d. name and telephone number of the disposal site operator;
  - e. name and physical site location of the disposal site;
  - f. date transported;
  - g. name, address, and phone number of the transporter; and
  - h. certification statement.
2. Contact disposal site to determine status of waste if signed shipping papers have not been received within 35 days  $\langle \text{TR 1200-03-11-.02(2)(k)5(ii)} \rangle$ .
3. Submit an exception report to TDEC if signed shipping papers have not been received within 45 days  $\langle \text{TR 1200-03-11-.02(2)(k)5(iii)} \rangle$ .
4. The project or subcontractor shall retain a copy of all Waste Shipment Records (WSR), including a copy of the WSR signed by the disposal site for at least two years  $\langle \text{TR 1200-3-11-.02(2)(k)5(iv)} \rangle$ .

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**F. Used Oil**

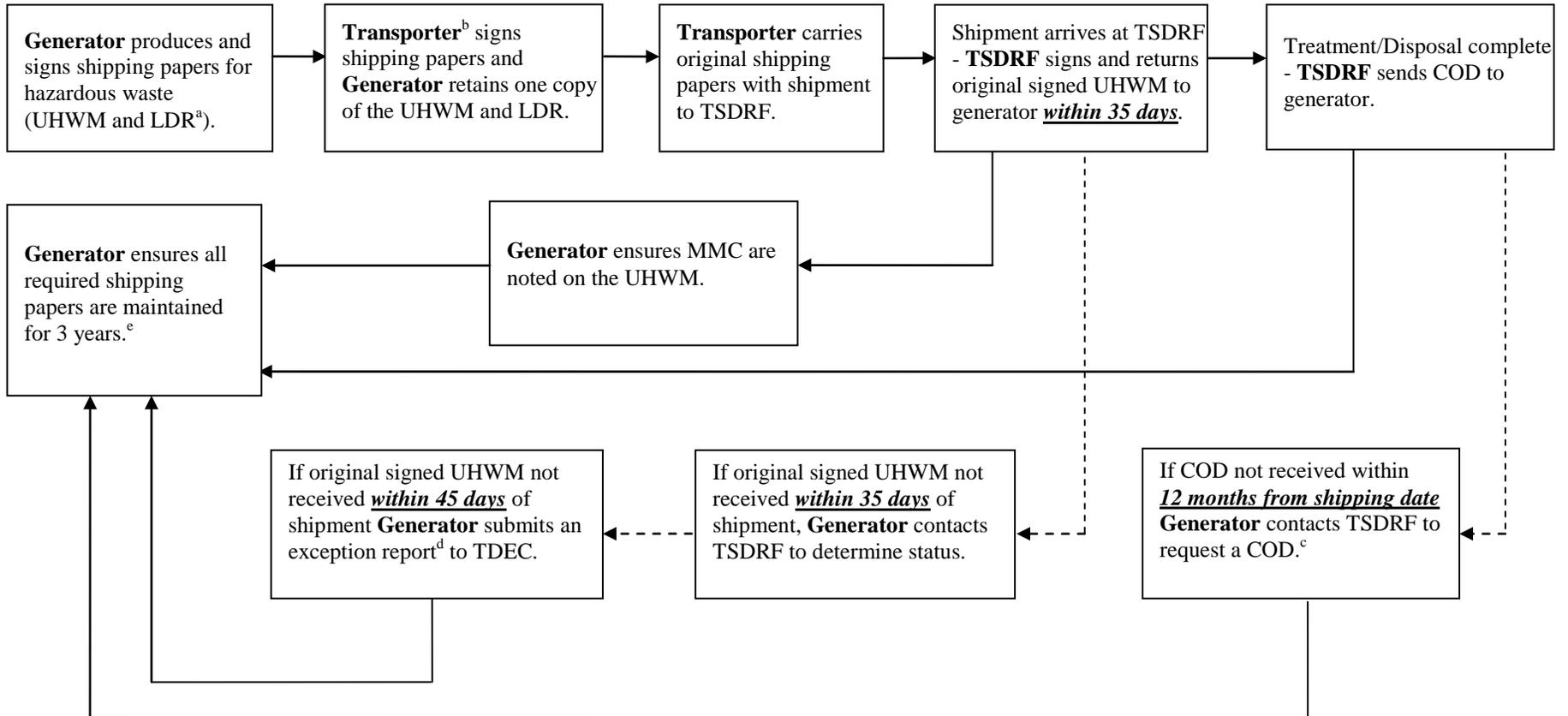
1. Transporter shall have an EPA ID number <TR 0400-12-01-.11(3)(e)>.
2. Generator shall utilize some form of shipping paper, such as a Bill of Lading, that identifies the name and address of destination facility, quantity used oil, and the date the shipment left the facility (UCOR requirement).
3. Waste generators shall ensure that the shipping papers/records are maintained at the generating project for at least 3 years or until the project is terminated. After 3 years, or when the project is terminated, records must be placed in the UCOR Document Management Center for long-term record storage (UCOR requirement).

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### Appendix R: Waste Shipping Requirements for RCRA Hazardous Waste

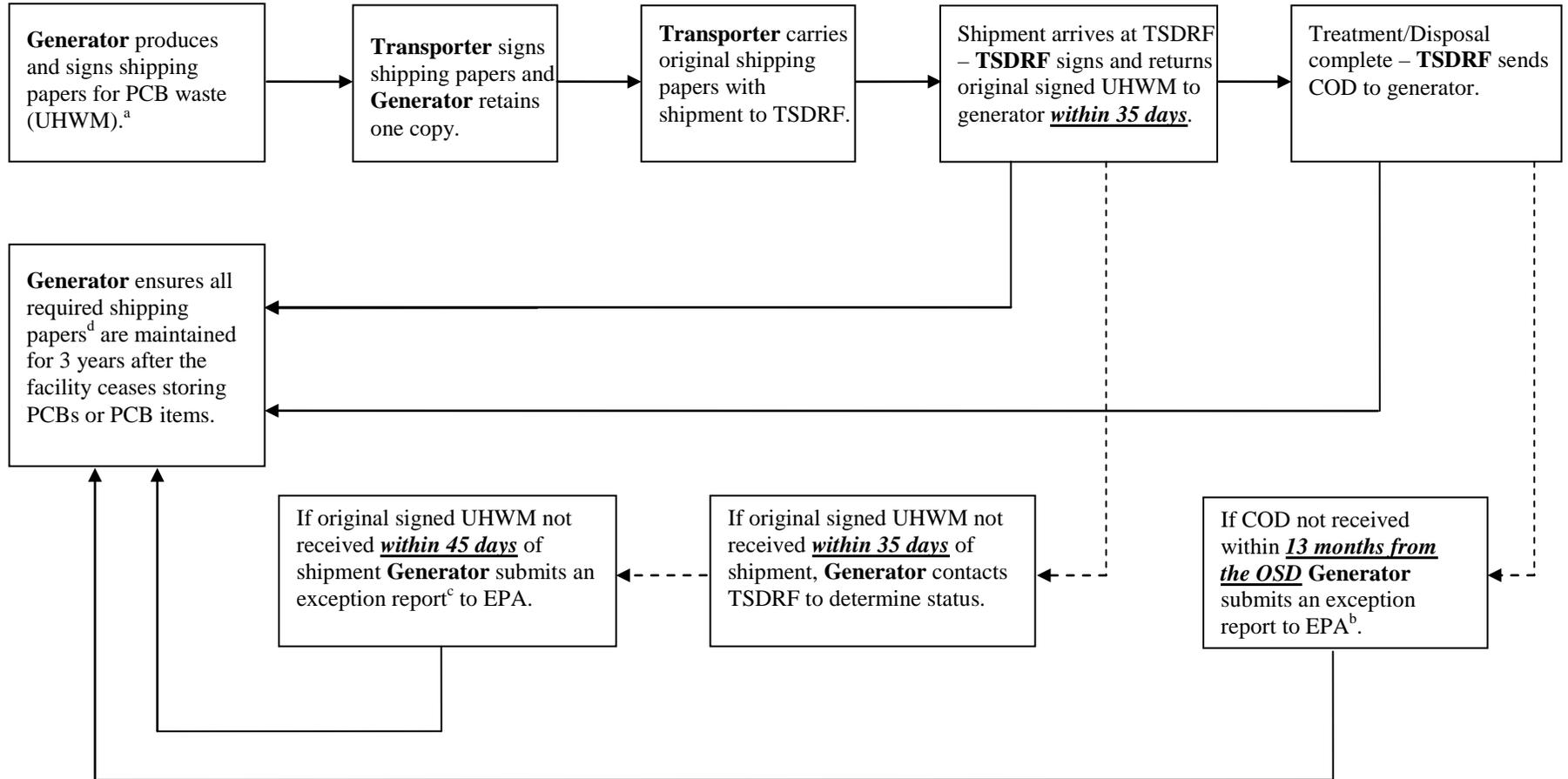


<sup>a</sup> An LDR must accompany the initial shipment of hazardous waste.  
<sup>b</sup> Generator must ensure Transporter has a valid State of Tennessee issued Transporter Permit.  
<sup>c</sup> CODs are not required per federal regulations; however, TDEC requests that they be available.  
<sup>d</sup> Exception reports must include a copy of the UHWM and a signed cover letter from the generator explaining the efforts taken to locate the shipment and the results.  
<sup>e</sup> Required shipping papers include the signed UHWM, LDR, and exception reports.

#### Acronyms

COD – certificate of disposal  
LDR – Land Disposal Restrictions notification  
MMC – management method codes  
RCRA – Resource Conservation and Recovery Act  
TDEC – Tennessee Department of Environment and Conservation  
TSDRF – treatment, storage disposal, and recycle facility  
UHWM – Uniform Hazardous Waste Manifest

### Appendix R: Waste Shipping Requirements for PCB Regulated Waste



<sup>a</sup> For each container on the shipment, the UHWM (or addendum to the UHWM) shall list the unique identifying number, type of PCB waste, out of service date, and weight in kilograms of PCB waste contained.

<sup>b</sup> Exemptions apply for PCB/radioactive waste removed from service for disposal.

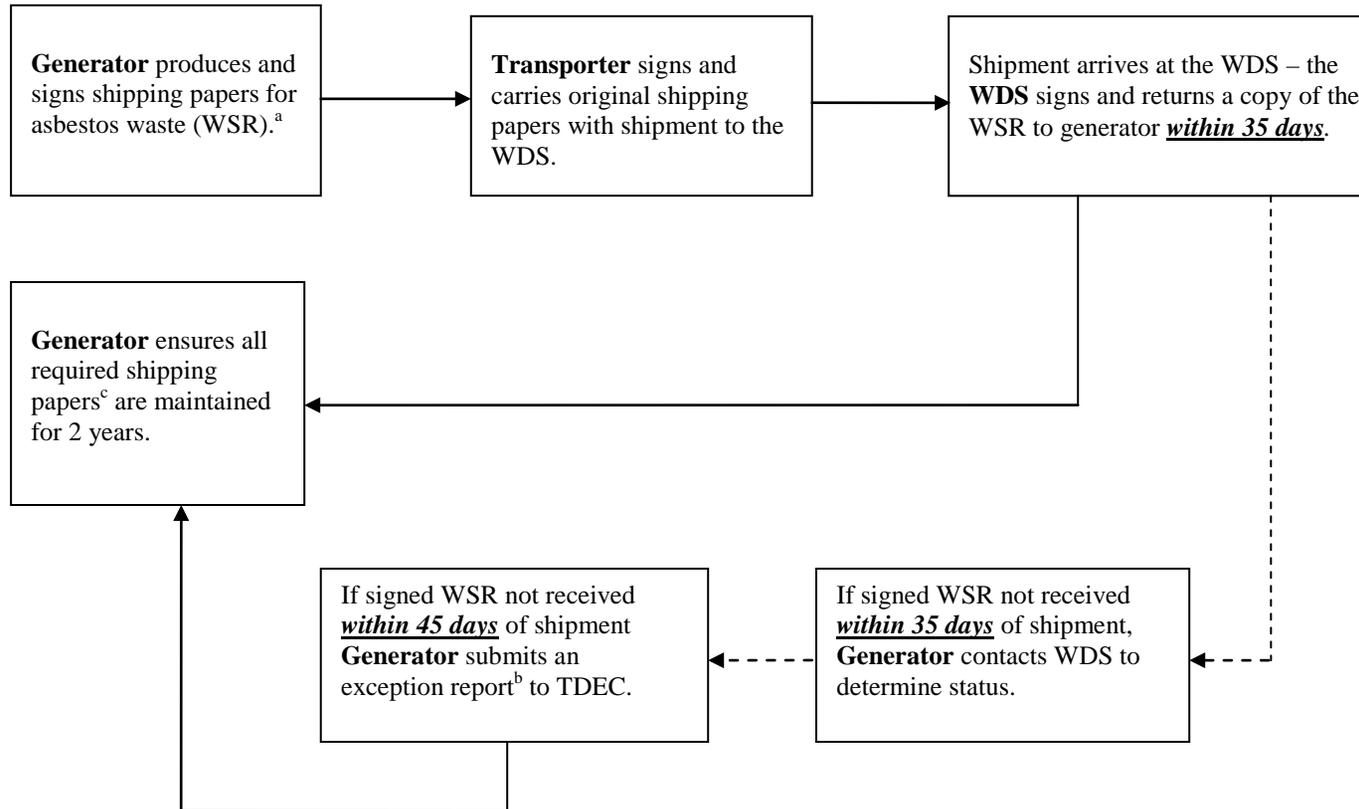
<sup>c</sup> Exception reports must include a copy of the UHWM and a signed cover letter from the generator explaining the efforts taken to locate the shipment and the results.

<sup>d</sup> Required shipping papers include the signed UHWM, COD, and exception reports.

#### Acronyms

COB – close of business  
 COD – certificate of disposal  
 EPA – U.S. Environmental Protection Agency  
 OSD – out of service date  
 PCB – polychlorinated biphenyls  
 TSDRF – treatment, storage, disposal, and recycle facility  
 UHWM – Uniform Hazardous Waste Manifest

### Appendix R: Waste Shipping Requirements for Regulated Asbestos Waste



<sup>a</sup> The WSR must include generator information, Asbestos NESHAP local or State agency information, quantity of asbestos in cubic meters or cubic yards, WDS information including physical location and facility permit number, date transported, transporter information, and a certification statement.

<sup>b</sup> Exception reports must include a copy of the WSR and a signed cover letter from the generator explaining the efforts taken to locate the shipment and the results.

<sup>c</sup> Required shipping papers include the signed WSR and exception reports.

#### Acronyms

NESHAP – National Emission Standards for Hazardous Air Pollutants  
 TDEC – Tennessee Department of Environment and Conservation  
 WDS – Waste Disposal Site  
 WSR – Waste Shipment Record

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**Appendix S**  
**SOLID WASTE DISPOSAL ACT (SANITARY/INDUSTRIAL WASTE) REQUIREMENTS**  
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Sanitary/Industrial waste is defined in PPD-WM-2400, *UCOR Waste Management Program*, as waste that is not regulated under RCRA or certain TSCA PCB wastes and meets radiological free-release criteria under Department of Energy (DOE) Order 5400.5 or DOE Order 458.1, *Attachment 1, Contractor Requirements Document, Radiation Protection of the Public and the Environment*. Tennessee Department of Environment and Conservation (TDEC) regulations governing management and disposal of sanitary/industrial waste are found in Solid Waste Processing and Disposal <TR 0400-11-01>.

Most sanitary/industrial wastes that are generated by UCOR non-CERCLA activities (and some generated from UCOR CERCLA activities) are disposed at one of the Y-12 National Security Complex (Y-12 NSC) sanitary/industrial landfills located on Chestnut Ridge. If these waste streams are sent to other, off-site facilities, the waste acceptance criteria of each particular facility must be consulted.

**A. Onsite Management of Sanitary/Industrial Waste Control**

1. Per PPD-WM-2400, the generator must ensure that all waste streams are controlled from the point of generation through to final disposition.

**B. Characterization of Sanitary/Industrial Waste**

1. Per PPD-WM-2400, the generator must refer to UCOR-4188, *URS / CH2M Oak Ridge LLC Waste Characterization Plan, Oak Ridge, Tennessee*, for profiling guidance. In addition, a Material Evaluation Form (Form-508), which contains worksheets that are not mandatory but may be used to help classify waste streams, including sanitary/industrial waste streams such as medical waste and asbestos-containing material.

**C. Disposal of Sanitary/Industrial Wastes at the Oak Ridge Reservation (ORR) Sanitary/Industrial Landfills**

1. Most sanitary/industrial wastes that are generated by UCOR non-CERCLA activities are disposed at one of the ORR landfills. (If these waste streams are sent to other, offsite TSDRFs, the waste acceptance criteria for each particular facility must be consulted.)

**D. ORR Sanitary/Industrial Landfills**

1. The ORR Landfills operate under site-specific operating permits issued by TDEC-Division of Solid Waste Management (DSWM). The active landfills include Industrial Landfill V, Construction/Demolition Landfill VII, and Industrial Landfill IV.
2. Industrial Landfill IV is an active Class II Solid Waste Disposal Facility (SWDF) operated since December 1989 for controlled disposal of various nonhazardous and nonradioactive solid wastes generated on the ORR.
3. Industrial Landfill V is an active Class II SWDF operated since April 1994 for controlled disposal of various nonhazardous and nonradioactive solid wastes generated at Y-12 and elsewhere on the ORR. Also, per a TDEC-DSWM special waste approval letter, the landfill may accept nonhazardous/nonradioactive solid wastes that include paint containing PCBs.

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4. Construction/Demolition Landfill VII is an active Class IV SWDF operated since July 2002 for controlled disposal of nonhazardous solid wastes, primarily construction wastes and demolition debris generated at Y-12 and elsewhere on the ORR. This landfill also is permitted to receive waste materials with paint that contains PCBs <50 ppm per a TDEC-DSWM special waste approval letter.

**E. Waste Acceptance Criteria for the ORR Landfills**

1. The process used to qualify wastes proposed for disposal at the ORR landfills is outlined in PROC-WM-2028, *Waste Generators' Guide to Disposing of Waste at the ORR Landfills*. Waste acceptance criteria for the ORR landfills are included in the following master waste profiles:
  - a. S-010 Construction/Demolition Waste
    - This waste stream includes wastes, other than special wastes, resulting from construction, remodeling, repair, and demolition of structures, and from road building or repair. Such wastes include, but are not limited to, bricks, concrete and other masonry materials, soil, rock, lumber, road spoils, rebar, and paving materials.
  - b. S-020 Sanitary Waste
    - This waste stream includes wastes generated by offices, cafeterias, medical facilities and laboratories, and waste produced in or generated by industrial or manufacturing processes.
  - c. S-030 Classified Waste
    - This waste stream includes sanitary/industrial waste or construction/demolition wastes that have been determined to be classified for national security reasons.
  - d. S-040 Special Waste
    - This waste stream includes wastes that are either difficult or dangerous to manage and may include sludges, bulky wastes, pesticide wastes, medical wastes, industrial wastes, hazardous wastes that are not subject to regulation under TR 0400-12-01-.03 through 0400-12-01-.07, friable asbestos wastes, and combustion wastes. The generator must make application to the landfill operator and TDEC for approval of waste disposal unless these waste streams are already addressed in the attachments to master waste profile S-040. The attachments cover special wastes for which the landfill has been given blanket approval by TDEC.

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**e. S-050 Spoil Materials**

- This waste stream includes certain earthen clean/non-contaminated materials that do not have to be deposited in a landfill. Placing this type of material in a soil area will save valuable landfill space. Acceptable spoil materials include gravel, soil, rock, concrete, brick, cinder/concrete blocks, clay products (tiles, pile, etc.), and asphalt pavement.

**F. Medical Waste**

1. Treated medical wastes may be disposed at Y-12 Industrial Landfill V under an approved special waste request. The regulations pertaining to whether a medical waste is regulated as an infectious waste are found in TR 0400-11-01-.01(2).
2. Untreated medical wastes must be sent to an approved off-site treatment facility. The untreated medical waste must be properly containerized in red plastic bags/red metal containers or sharps container and pre-labeled with the BIOHAZARD warning symbol.

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**Appendix T**  
**ENVIRONMENTAL SIGNAGE/POSTING REQUIREMENTS AND BEST PRACTICES**  
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<b>Program Area</b>	<b>Type of Signage</b>	<b>Type of Requirement</b>	<b>Specifications</b>
<b>EMP</b>	Stream Buffer Zone	Best Practice	Signs may be placed near waters of the state to prevent disturbance of waterways or riparian zones.
<b>EMP</b>	Wetland Buffer Zone	Best Practice	Signs may be placed near wetlands areas to prevent disturbance of soil and sediment. Signs may be permanent or may be surveyor flagging.
<b>CWA/NPDES</b>	Storm Water Outfall	NPDES Permit TN0002950	Signs must be of durable material and a minimum of 2-ft by 2-ft. Letters must be a minimum of 1-inch high. Signs will be of black letters on a white background. Signs must list the nature of the discharge. Signs at permitted outfalls must state that the discharge is regulated by the TDEC Division of Water Resources, and must include contact phone numbers for both TDEC and the permittee. If the outfall is accessible to members of the public (for example, a storm water outfall on the Clinch River), the sign must be readable by the public. An example sign is given in the permit. Multiple outfalls are typically listed on each of these large signs.
<b>CWA/NPDES</b>	Storm Water Outfall	Best Practice	Small marker signs are located at each storm water outfall. It is recommended that the signs be approximately 4-inch x 10-inch size. The signs are white with black lettering. These signs only list the outfall number and are used in conjunction with the larger signs required by the NPDES permit.

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Program Area	Type of Signage	Type of Requirement	Specifications
CWA/NPDES	Pump and Haul Systems	Permits SOP-99033, SOP-01043, SOP-05068, SOP-07014	Signs must be of durable material and a minimum of 2-ft by 2-ft. Letters must be a minimum of 1-inch high. Signs will be of black letters on a white background. Signs must list the nature of the discharge. Signs must state that the discharge is regulated by the TDEC Division of Water Resources, and must include contact phone numbers for both TDEC and the permittee. Signs shall be placed and maintained at the point where the wastewater is pumped and should be clearly visible to the public. An example sign is given in each permit.
PCB	Identification of PCB waste storage/accumulation area	40 CFR 761.40(a)(10)	Storage areas must be marked with the 6-inch by 6-inch PCB M <sub>L</sub> (6x6 M <sub>L</sub> ). All PCB M <sub>L</sub> marks must be 6 inches by 6 inches with a yellow background with black lettering.
PCB	Identification of building used to store PCB waste in PCB waste storage units (exterior entrance)	40 CFR 761.40(h)	Post 6x6 M <sub>L</sub> mark on entrance(s) to the facility.
PCB	PCB items in temporary storage	40 CFR 761.40(k) and 40 CFR 761.65(c)(1)	Items must be marked and a date noted when the item was removed from service with a 6x6 M <sub>L</sub> or M <sub>S</sub> . The M <sub>S</sub> mark can vary in size.
PCB	Identification of PCB Article Containers	40 CFR 761.65(c)(i)(ii)	Label containers holding transformers, large high-voltage capacitors, large low-voltage capacitors, equipment containing PCB transformers of PCB large high-voltage capacitors electric motors using PCB coolants, hydraulic systems using PCB hydraulic fluid, and heat transfer systems with 6x6 M <sub>L</sub> .
PCB	Identification of PCB Transformer ≥500 ppm	40 CFR 761.40 (a)(2)(b)(e)	Label PCB Transformer with 6x6 M <sub>L</sub> .
PCB	PCB Transformer Locations	40 CFR 761.40(j)(1)	All the following areas in a PCB Transformer location must be marked with a 6x6 M <sub>L</sub> — vault doors, machinery room door, fence, hallway or means of access to a PCB Transformer other than grates and manhole covers.
PCB	PCB Transformer	40 CFR 761.40(a)(2)	Label PCB Transformers with 6x6 M <sub>L</sub> at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal from use if not already marked.

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**ENVIRONMENTAL SIGNAGE/POSTING REQUIREMENTS AND BEST PRACTICES**  
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Program Area	Type of Signage	Type of Requirement	Specifications
PCB	PCB equipment containing a PCB Transformer or Large High Voltage Capacitor with a concentration $\geq 500$ ppm	40 CFR 761.40(a)(4)	Equipment must be marked with a 6x6 M <sub>L</sub> at the time the equipment is removed from service.
PCB	Identification Large High Voltage Capacitors	40 CFR 761.40(a)(3)	Label Large High Voltage Capacitors with 6x6 M <sub>L</sub> at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal from use if not already marked.
PCB	Identification of Large High Voltage Capacitors $\geq 50$ ppm	40 CFR 761.40(c)(2)(i)(ii)	Label equipment with a 6x6 M <sub>L</sub> ; if in a protected location such as on a power pole or structure, or behind a fence, then the pole, structure, or fence must be marked. If the capacitor is removed from protected area, it must be marked if not already marked.
PCB	Identification of Low Voltage Capacitors $\geq 50$ ppm	40 CFR 761.40(a)(5)	Must be labeled with a 6x6 M <sub>L</sub> at the time it is removed from service.
PCB	Identification of Electrical Motors, PCB Coolants, Hydraulic systems using PCB hydraulic fluid, Heat transfer systems and article containers	40 CFR 761.40(a)(6) through (a)(9)	Mark each with 6x6 M <sub>L</sub> .
PCB	Identification of PCB Transport Vehicles	40 CFR 761.40(b)(h) and 40 CFR 761.40(b) and (e)	Label transport vehicle with 6x6 M <sub>L</sub> if vehicle is transporting PCB containers >45 kg (99.4 pounds) of liquid PCB with a concentration $\geq 500$ ppm or one or more PCB transformer with a concentration $\geq 500$ ppm.
PCB	Identification of PCB-contaminated items such as tools and equipment and items dedicated for reuse	40 CFR 761.40(k) and ORR-PCB-FFCA Subpart J	Mark items with 6x6 M <sub>L</sub> or M <sub>S</sub> mark. M <sub>S</sub> mark can vary in size.
PCB	Identification of PCB-contaminated areas where continued use is desired	40 CFR 761.30(p)	Mark painted or covered surface with 6x6 M <sub>L</sub> mark.

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Program Area	Type of Signage	Type of Requirement	Specifications
CAA Asbestos NESHAP	Warning signs during asbestos waste loading/unloading operations	40 CFR 61.149(d)	When asbestos containing waste is transported by vehicle, mark vehicles used to transport waste material during the loading and unloading of the waste so that the signs are visible.  DANGER ASBESTOS DUST HAZARD CANCER AND LUNG DISEASE HAZARD Authorized Personnel Only
OSHA/CAA Asbestos NESHAP	Warning signs for areas that have asbestos containing materials present and regulated (asbestos abatement) areas	29 CFR 1926.1101(k)(7) and 29 CFR 1910.1001(j)(4)	Warning signs shall be provided and displayed at each regulated area. In addition, warning signs shall be posted at all approaches to regulated areas so that an employee may read the signs and take necessary protective steps before entering the area.  DANGER ASBESTOS MAY CAUSE CANCER CAUSES DAMAGE TO LUNGS AUTHORIZED PERSONNEL ONLY  In addition, where the use of respirators and protective clothing is required in the regulated area under this section, the warning signs shall include the following:  RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA
Underground Storage Tank Program	Placard Signs	Best Practice	Tank 20A, Gasoline (ETTP Garage) Tank 21A, Diesel (ETTP Garage)
Underground Storage Tank Program	Posted at each UST area	Best Practice	"NO SMOKING"
Emergency Planning and Community Right-to-Know Act Program	Posted at each area that stores Hazardous Materials	Best Practice	HAZARDOUS MATERIALS STORAGE AREA ID # _____
RCRA Permit	Around each permitted unit and at entrance to unit	All RCRA Permits including Post Closure Permits	"DANGER - UNAUTHORIZED PERSONNEL KEEP OUT"  Legible from a distance of 25-ft and visible from all angles of approach.
RCRA Permit	Posted at each area that stores or treats "ignitable or reactive wastes"	All RCRA Permits	"NO SMOKING" & "Safety Glasses Required" – @ ORNL only – TNHW-145

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Program Area	Type of Signage	Type of Requirement	Specifications
RCRA Permit	Posted at RCRA permitted facilities	Best Practice	PERMITTED STORAGE/TREATMENT UNIT XYZ POC PHONE #
RCRA	Waste Compatibility Chart at RCRA Waste Storage Areas	Best Practice	A waste compatibility chart may be used to assist waste generator in avoiding addition of incompatible wastes into waste collection container. No specified format.
RCRA	Satellite Accumulation Area (SAA)	UCOR Procedure	Satellite Accumulation Area Waste Generated POC Phone # Environmental Pager – <i>Delineate the designated area and post it using approved signage</i>
RCRA	90-Day Accumulation Area	UCOR Procedure	90-Day Accumulation Area POC Phone # Environmental Pager – <i>Make sure that tapes, fences, signs, etc. designating the area are in place</i>
RCRA	90-Day Accumulation Area	TR 0400-12-01-.05(2)3	“DANGER – UNAUTHORIZED PERSONNEL KEEP OUT”
RCRA	90-Day Accumulation Area when accumulating ignitable or reactive wastes	TR 0400-12-01-.05(2)(h)	"NO SMOKING"
RCRA	Universal Waste Accumulation Areas	UCOR Procedure	Universal Waste Accumulation Area XYZ POC PHONE #
RCRA	Used Oil Storage Areas	UCOR Procedure	USED OIL POC PHONE #

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**Appendix U**  
**ALKALINE BATTERY MANAGEMENT**  
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Alkaline batteries (used or unused) become a waste on the date discarded. While alkaline batteries are not governed by regulatory requirements, the batteries must be managed for recycle and must not be discarded in the sanitary trash (UCOR requirement). Alkaline batteries must be managed as follows:

**A. UCOR Handling Requirements**

1. Alkaline batteries may be stored in any type of recycle collection container.
2. The recycle collection container must be marked “Alkaline Batteries Only.”
3. Alkaline batteries can accumulate for any length of time.
4. Ensure 9-volt alkaline battery terminals are protected with non-conductive caps or non-conductive tape.  
**NOTE:** Other types of alkaline batteries (AA, AAA, C, D) do not require the terminals be taped but may be taped as a best management practice.
5. If the battery does not contain the word “alkaline”, it must be managed as universal waste.  
**NOTE:** Other types of non-hazardous batteries such as heavy duty, extra heavy duty, and super duty batteries can be evaluated on a case-by-case basis by the project EC&P Lead to determine the appropriate management of the battery.
6. Ensure that no universal waste batteries are stored in the alkaline battery recycle collection container.  
**NOTE:** Alkaline batteries may be stored with universal waste batteries, and the container must be managed under the universal waste requirements (see Appendix J).