

**SECTION 02 82 23**  
**REMOVAL OF HAZARDOUS BUILDING COMPONENTS**

**PART 1 GENERAL**

**1.1 STIPULATIONS**

- A. The specifications sections "General Conditions to the Construction Contract", "Special Conditions" and "Division 01 – Coordination " form a part of this Section by this reference thereto, and shall have the same force and effect as if printed herewith in full.

**1.2 REFERENCES**

- A. 1992 Environmental Report (Provided by DGS)
- B. ACM Management Plan Loysville 2017
- C. DGS C-0588-0015-PI – LYDC – Renovations to ZB Cottage – Hazmat Report
- D. The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.
  - 1. 29 CFR 1910.1000 Air Contaminants
  - 2. 29 CFR 1910.134 Respiratory Protection
  - 3. 40 CFR 261 Identification and Listing of Hazardous Waste
  - 4. 40 CFR 262 Generators of Hazardous Waste
  - 5. 40 CFR 263 Transporters of Hazardous Waste
  - 6. 40 CFR 266 Storage, Treatment, Transportation, and Disposal of Mixed Waste
  - 7. 40 CFR 302.4 Hazardous Materials Regulations, Amendments and Reportable Quantities
  - 8. 40 CFR 761 Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce and Use Prohibitions
  - 9. 49 CFR 172 Hazardous Materials, Table, and Hazardous Materials Communications Regulations
  - 10. 49 CFR 178 Shipping Container Specifications
  - 11. Pennsylvania Bureau of Waste Management Act 109 – Solid Waste Management Act
  - 12. Pennsylvania Department of Environmental Protection Act 101, Chapter 11 – Assistance to Municipalities, Section 1101 (e)
  - 13. Worker Community Right-to-Know Act of Pennsylvania, PL. 734, No. 159; 35 PS. 7317

### 1.3 SCOPE OF WORK

- A. Removal and disposal of PCB containing light ballasts, associated mercury-containing lamps, exit signs containing tritium, thermostats, and other hazardous building components for the Pennsylvania Department of General Services (DGS) Loysville Youth Development Center Project. The Contractor, who must be certified to handle asbestos-contaminated materials, has the responsibility for determining actual quantities of materials to be removed and reviewing the scope of work. No additional contract price adjustments will be allowed due to variances between actual quantities and the estimated quantities listed herein (unless otherwise specified in this document). The address for this site is the following:

Loysville Youth Development Center ZB Cottage  
10 Opportunity Drive  
Loysville, PA 17047  
Tyrone Township-Perry County

- B. If required, the Abatement Contractor shall coordinate with any of the specific trades that may be affected to ensure that all appropriate systems that will be impacted by demolition have been properly decommissioned prior to the start of any work.
- C. Also Refer to Specification 01 04 00 Coordination and Control sections 1.5, 1.6 and 1.7

### 1.4 DEFINITIONS

- A. Characteristic Wastes – Wastes that are not listed wastes but that exhibit ignitability, corrosivity, reactivity, or toxicity.
- B. Clean Fill – Uncontaminated inert solid material. Includes soil, rock, stone, dredged material, used asphalt, and brick, block, or concrete from construction and demolition activities. Clean fill is uncontaminated and unaffected by spills or releases; or if affected, levels are below residential statewide health standards.
- C. Hazardous waste – any material which is defined to be hazardous waste in accordance with 40 CFR 261.3, "Definition of Hazardous Waste".
- D. Listed Waste – Wastes that EPA has determined are hazardous. The lists include the F-list (wastes from common manufacturing and industrial processes), K-list (wastes from specific industries), and P- and U-lists (wastes from commercial chemical products).
- E. Mixed Waste – Defined in RCRA as amended by the Federal Facility Compliance Act of 1992, means a waste that contains both RCRA hazardous waste and source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954, as amended.
- F. Polychlorinated Biphenyls (PCBs) - PCBs as used in this specification shall mean the same as PCBs, PCB containing lighting ballast, and PCB container, as defined in 40 CFR 761, Section 3, Definitions.
- G. Tritium, also known as 3H or H-3, is a radioactive isotope of hydrogen. In Exit signs, the gas is contained in sealed glass tubes lined with a light-emitting compound. Tritium Exit signs must be disposed of at licensed low-level radioactive waste disposal facility.
- H. Universal Waste – Batteries, pesticides, mercury-containing equipment (e.g., thermostats) and lamps (e.g., fluorescent bulbs).

## **1.5 SUBMITTALS**

- A. Submit two copies of the following documentation:
  - 1. Certificates
    - a. Training Certifications
    - b. Hazardous Waste / Mixed Waste Removal and Disposal Work Plan
  - 2. Closeout Submittals
    - a. Transporter certification of notification to EPA of their waste activities and EPA ID numbers
    - b. Certification of Decontamination
    - c. Certificate of Disposal and/or recycling. Submit before application for payment within 30 days of the date that the disposal of the waste identified on the manifest was completed.

## **1.6 QUALITY ASSURANCE**

- A. Training Certifications: All workers shall train in accordance with 29 CFR 1910.140 (HAZWOPER). The instruction shall include: The dangers of hazardous materials exposure, decontamination, safe work practices and applicable OSHA and EPA regulations. The Client or their representative shall review and approve the Hazardous Waste / Mixed Waste Removal and Disposal Work Plans.
- B. Hazardous Materials Equipment Removal Plan: Submit a job-specific plan of the work procedures to be used in the removal, packaging, and storage of hazardous materials equipment and associated wastes. Included in the plan: Requirements of Personal Protective Equipment (PPE), cleanup procedures and equipment, eating, smoking and restroom procedures. The plan shall indicate procedures to follow when radioactive signage / lead lined boxes or pigs are encountered. The plan shall be submitted prior to the start of removal work.
- C. Hazardous Materials Equipment Disposal Plan: Submit a Hazardous Waste / Mixed Waste Disposal Plan. The Disposal Plan shall comply with applicable requirements of federal, state, and local RCRA waste regulations and address:
  - 1. Estimated quantities of wastes to be generated, disposed of, and recycled.
  - 2. Names and qualifications of each Contractor that will be transporting, storing, treating, and disposing of the wastes. Include the facility location. Furnish two copies of the EPA and state waste permit applications and EPA identification numbers. The Contractor shall ensure the facility's EPA identification number is used.
  - 3. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes. This includes 40-hour HAZWOPER training certificates.
  - 4. Spill prevention, containment, and cleanup contingency measures to be implemented.

5. Work plan, start-date and schedule for hazardous waste removal, containment, storage, transportation, disposal, and/or recycling. Wastes shall be cleaned up and containerized daily.

## **1.7 ENVIRONMENTAL REQUIREMENTS**

- A. Special Clothing
  1. Disposable gloves (polyethylene)
  2. Eye Protection
  3. PPE – Tyvek disposable suits
- B. Respiratory Protection – P100 particulate filtration to protect against mold spores, in accordance with OSHA 29 CFR 1910.134.

## **PART 2 EXECUTION**

### **2.1 WORK PROCEDURES**

- A. Furnish labor, materials, service, and equipment necessary for the removal of hazardous waste and equipment in accordance with local, state, and federal regulations. Do not expose wastes to open flames or other high temperature sources since toxic decomposition by-products may be produced. Do not break mercury-containing fluorescent lamps.
- B. Ensure that work operations or processes involving hazardous wastes and equipment are conducted in accordance the applicable requirements listed in Part 1 of this specification, including but not limited to:
  1. Obtaining suitable storage sites.
  2. Notifications prior to commencing the operation.
  3. Reporting any leaks and/or spills.
  4. Cleaning up spills.
  5. Inspecting wastes and waste containers for leaks and forwarding copies of inspection reports.
  6. Maintain all inspection, inventory, and spill records.

### **2.2 REMOVAL**

- A. Ballasts: As ballasts are removed from the lighting fixtures, inspect label on all ballasts. Ballasts without a "No PCB" label shall be assumed to contain PCBs and containerized and disposed of as required under paragraphs herein entitled "STORAGE FOR DISPOSAL" and "DISPOSAL." The Contractor shall use the facility's EPA identification number.
- B. Lighting Lamps: Remove lighting tubes/lamps from the lighting fixture and carefully place (unbroken) into appropriate containers (original transport boxes or equivalent). In the event

of a lighting tube/lamp breaking, sweep and place waste in double plastic taped bags and dispose of as specified herein.

- C. Exit signs containing tritium, other radioactive signs, or symbols: Remove signage / labeling that contain permanent warning label that mentions tritium, 3H or H-3; displays the three-bladed radiation warning symbol; and/or states "Caution-Radioactive Materials." All signage / labeling must be de-faced prior to disposal.



- D. If Freon is present, EPA requires only trained licensed personnel to remove refrigerant from cooling systems prior to demolition.
- E. PCBs and Mercury Material Results

The following items were identified that will have to be part of the building renovations.

Floor	Fluorescent Bulbs and Ballasts	Thermostats	Window AC Units
Basement	15 Fixtures	2	3
First Floor	20 Fixtures	1	3
Second Floor	16 Fixtures	0	3
Third Floor	3 Fixtures	0	0
Total	54 Fixtures	3	9

## 2.3 STORAGE FOR DISPOSAL

- A. Storage Containers for PCBs: 49 CFR 178. Store PCB in containers approved by DOT for PCBs.
- B. Storage Containers for Lamps: Store mercury-containing lamps in appropriate DOT containers. The boxes shall be stored and labeled for transport in accordance with 40 CFR 262 and 40 CFR 263.
- C. Labeling of Waste Containers: Label with the following:
1. Date the item was placed in storage and the name of the appropriate activity/building.
  2. Caution Contains PCB," conforming to 40 CFR 761, Subpart C. Contractor shall affix proper labels to PCB-waste containers.

3. Label mercury-containing lamp waste in accordance with 49 CFR 172, 40 CFR 262, and 40 CFR 263. Affix labels to all lighting waste containers.

## **2.4 DISPOSAL**

- A. Dispose of property in accordance with EPA, DOT, and local regulations at a permitted site.
  1. Identification Number: Federal regulations 40 CFR 761 and 40 CFR 263 require that generators, transporters, commercial storers, and disposers of PCB and mercury-containing waste possess U.S. EPA Identification numbers.
  2. Transporter Certification: Comply with disposal and transportation requirements outlined in 40 CFR 761 and 40 CFR 263. Before transporting the PCB and mercury lamp waste, the hazardous waste manifest must be reviewed and signed. Return a signed copy before leaving the job site. Ensure that the manifest accompanies the PCB and lamp waste at all times. Submit transporter certification of notification to EPA and their PCB and lamp waste activities.
  3. Certificate of disposal and/or recycling: 40 CFR 761. Certificate for the PCBs and PCB items, and lamps disposed shall include the identity of the disposal and/or recycling facility, by name, address, and EPA identification number. Also include the identity of the PCB and lamp waste affected by the Certificate of Disposal including reference to the manifest number for the shipment. Finally, include a statement certifying the fact of disposal and/or recycling of the identified PCB and/or lamp wastes, including the date(s) of disposal, and identifying the disposal process used and complied with 40 CFR 761 .

**END OF SECTION**