CH2M HILL Plateau Remediation Company

# ADMINISTRATIVE DOCUMENT PROCESSING AND APPROVAL

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| Asbestos NESHAP Thorough Inspection Report at 2503Z | PFP Closure Project |

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**DOCUMENT REVISION SUMMARY**

NOTE: Provide a brief description or summary of the changes for the document listed.

The purpose of this report is to disclose the results of an asbestos thorough inspection of 2503Z 13.8kV Switch Yard - N of 234-5Z

**REVIEWERS** **Others**

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CWR-PFP-00033
Revision 0

# Asbestos NESHAP Thorough Inspection Report at 2503Z

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Contractor for the U.S. Department of Energy
under Contract DE-AC06-08RL14788

**P.O. Box 1600**
**Richland, Washington 99352**

CWR-PFP-00033
Revision 0

# Asbestos NESHAP Thorough Inspection Report at 2503Z

Document Type: RPT Program/Project: PFP Closure

T. A. Hopkins
CH2M HILL Plateau Remediation Company

Date Published
August 2017

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*By Natalie Klasen at 8:46 am, Aug 24, 201.*

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# Executive Summary

The 234-5Z Building at the Plutonium Finishing Plant (PFP) was constructed in 1949. Electrical power was provided through a series of transformers and electrical distribution systems. The 2503Z, 13.8kV Switch Yard - N of 234-5Z, located on the north side of 234-5Z, is part of that system. It consists of fenced gravel pad ~5.5 by 22.9 m (18 by 75 ft). Within this area are four 0.9 m (3 ft) square concrete bases. Four high voltage electrical poles sit on these bases, which serve 234-5Z and 291Z. This facility is open to the air and has no roof or wall.

The facility is made solely of concrete, metal, and electrical wiring. The only suspect asbestos-containing material (ACM) present are the high voltage power lines. A visual evaluation of these power lines shows an outside rubber sheath, an inside layer of hard white rubber, and then copper wiring. No suspect ACMs were present. Therefore, no samples were taken.

This report documents the results of this inspection of the 2503Z, 13.8kV Switch Yard - N of 234-5Z. Characterization was completed using process knowledge and visual evaluations.

## 2503Z Results

There is no ACM associated with this facility. No further action is required.

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# Contents



# Appendices



# Figures



# Tables

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# Terms

| | |
|---|---|
| ACM | asbestos-containing material |
| AHERA | *Asbestos Hazard Emergency Response Act of 1986* |
| CAT I | Category I |
| CAT II | Category II |
| CHPRC | CH2M HILL Plateau Remediation Company |
| COC | chain-of-custody |
| DOE | U.S. Department of Energy |
| EPA | U.S. Environmental Protection Agency |
| IH | industrial hygiene |
| N/A | not applicable |
| NAD | no asbestos detected |
| NESHAP | “National Emission Standards for Hazardous Air Pollutants” (40 CFR 61) |
| PACM | presumed asbestos-containing material |
| PFP | Plutonium Finishing Plant |
| RACM | regulated asbestos-containing material |
| RAWP | removal action work plan |
| SAP | sampling and analysis plan |
| TSI | thermal system insulation |

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# 1 Introduction

Prior to the commencement of the demolition, a thorough inspection of the affected structure will be performed and documented for the presence of asbestos, including Category I (CAT I) and Category II (CAT II) nonfriable asbestos-containing material (ACM). If the U.S. Department of Energy (DOE) identifies any CAT II ACM that should be allowed to remain in place during demolition, information identifying the planned demolition approach and a description of how the CAT II ACM will not become crumbled, pulverized, or reduced to powder by the forces expected to act on it during the demolition, will be provided in advance to U.S. Environmental Protection Agency (EPA) for approval. Such CAT II nonfriable ACM must not be in poor condition and planned demolition activities must not subject the ACM to sanding, grinding, cutting, or abrading.

CAT I nonfriable ACM remaining in the building for demolition can remain where demolition practices will be used that can be or have been demonstrated to the satisfaction of EPA to not render the CAT I ACM friable, consistent with “National Emission Standards for Hazardous Air Pollutants” (NESHAP) (40 CFR 61) standards. Such CAT I nonfriable ACM must not be in poor condition and planned demolition activities must not subject the ACM to sanding, grinding, cutting, or abrading.

In all cases, ACM that is either friable or cannot be demonstrated to remain nonfriable during demolition will be removed prior to such demolition, as required by NESHAP (40 CFR 61). 40 CFR 61 also requires the operator to perform a thorough inspection to identify, quantify, and describe all CAT I and CAT II ACM affected by demolition. This report documents the results of both the inspection and characterization of the 2503Z.

## 1.1 Scope

The scope of this report is to document the thorough asbestos inspection of the 2503Z, 13.8kV Switch Yard - N of 234-5Z. The current Plutonium Finishing Plant (PFP) schedule calls for demolition of the 2503Z system in 2017.

The EPA asbestos NESHAP (40 CFR 61) regulations require that prior to commencement of any demolition activity, a certified *Asbestos Hazard Emergency Response Act of 1986* (AHERA) Building Inspector must perform a thorough inspection of the affected facility and document that inspection. The purpose of this thorough inspection is to identify the following items:

- Homogeneous areas of ACM and their locations
- Quantity of ACM
- NESHAP (40 CFR 61) category of ACM (friable, CAT I or CAT II)
- Condition of all ACM (particularly important if nonfriable CAT I or CAT II ACM is to be left in place during demolition)
- CAT I or CAT II ACM that has become regulated asbestos-containing material (RACM) based on condition
- CAT I or CAT II ACM that can become RACM, based on planned demolition techniques
- Suspect ACM that was determined (through inspection or sampling and analysis) not to be ACM

## 1.2 Building Description: 2503Z

Demolition is described in DOE/RL-2011-03, *Removal Action Work Plan for the Deactivation, Decontamination, Decommissioning, and Demolition of the Plutonium Finishing Plant Complex* (RAWP) as demolition of a facility "to slab-on-grade." Each PFP abovegrade structure would be demolished until only the slab and foundation remained. For structures with basements, tunnels, vaults, and so forth, the belowgrade walls would be left standing as well as the belowgrade slab and foundation. These remaining surface portions of a structure are referred to in this document collectively as the structure's slab.

The following demolition activities are applicable to the 2503Z:

- Initial characterization
- Remove remaining hazardous substances (chemical, radiological, and biological)
- Demolish structures to slab-on-grade
- Final characterization
- Site stabilization and demobilization
- Turnover to post removal action surveillance and maintenance

The following elements comprise the 2503Z (Figures 1 through 4):

- 5.5 by 22.9 m (18 by 75 ft) fenced gravel pad
- Four 0.9 m (3 ft) square concrete bases
- Four high voltage power poles
- High voltage power lines

## 1.3 Description of Inspection and Sampling

A review of design drawings and other existing information was conducted to determine what building materials were used at the time of construction and whether any renovations had been made. In May 2017, visual inspections were conducted by certified AHERA Building Inspectors T.A. Hopkins and W.G. Cox (copies of AHERA Inspector Certifications are provided in Appendix D). The purpose of the visual inspection was to identify all suspect ACM and all suspect materials that would require sampling and analysis. For ACM and presumed asbestos-containing material (PACM), or suspect material, the following information would need to be determined:

- Asbestos classification (miscellaneous, surfacing material, or thermal system insulation [TSI])
- Asbestos type (RACM, CAT I, or CAT II)
- Quantity (square feet or linear feet)
- Condition (poor/good)
- Location
- Sample density (for materials not handled as PACM) as prescribed by AHERA (homogeneous/nonhomogeneous)
- Accessibility for sampling

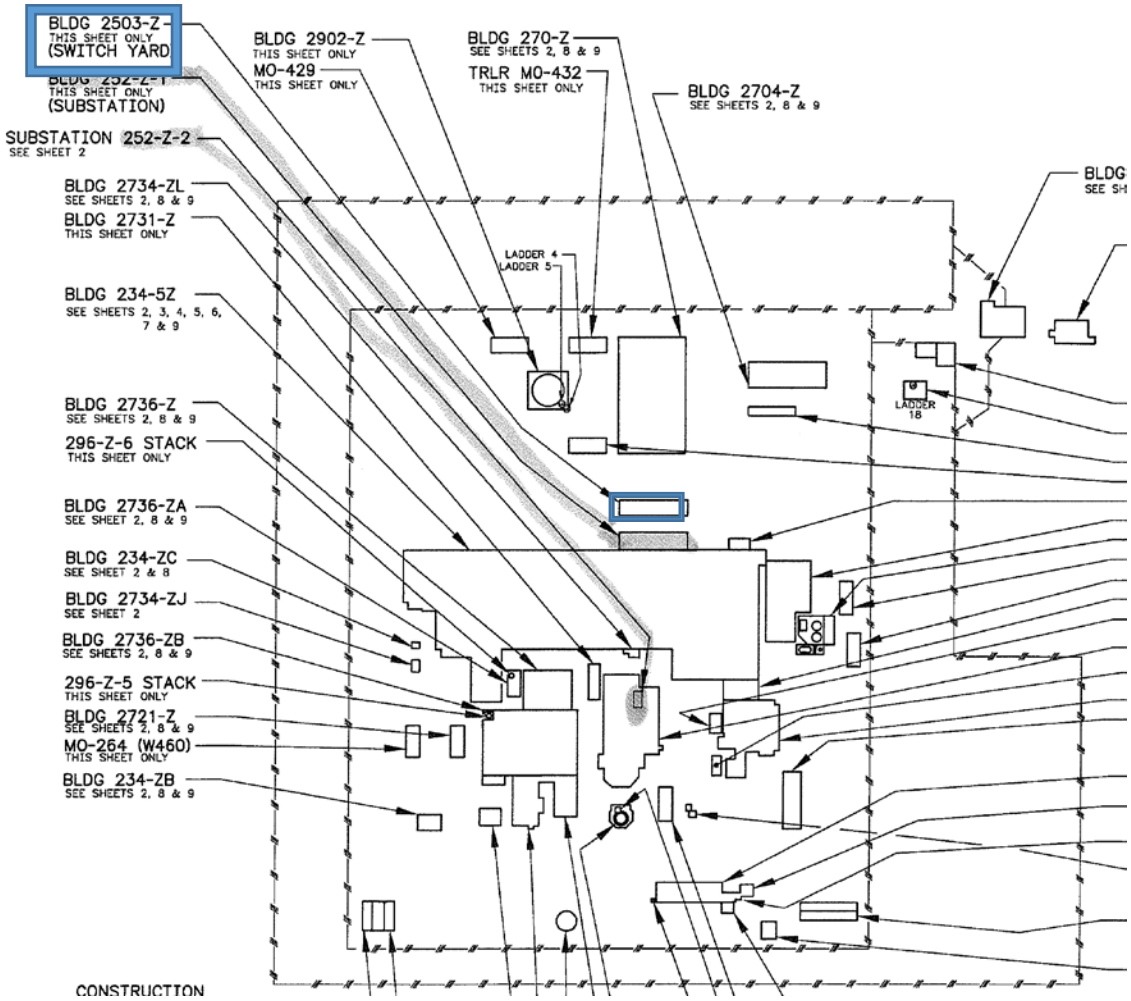


Figure 1. 2503Z Location

Figure 2. 2503Z East Side

Figure 3. 2503Z Close up East Side


Figure 4. 2503Z West Side

After the walkdowns, a sampling and analysis plan (SAP) was created (Appendix A). The SAP called for conducting visual evaluations and identifying suspect ACM. No suspect ACMs were identified during the visual evaluation. Therefore, no samples were taken.

If suspect ACMs were identified that required sampling, then samples would be taken in accordance with guidance for sampling as provided by DOE/RL-2004-29, *Sampling and Analysis Plan for the Plutonium Finishing Plant Above-Grade Structures*. All visual evaluations and sampling (as required) were conducted by certified AHERA Building Inspectors. If samples were required, all samples would be documented on chain-of-custody (COC) forms with sample identification numbers. When the samples were transferred to the analytical laboratory, laboratory personnel would assign log numbers.

### 1.3.1 Description of Thorough Inspection Process

The RAWP (DOE/RL-2011-03) requires that, "Prior to the commencement of the demolition, a thorough inspection of the affected structure will be performed and documented for the presence of asbestos, including CAT I and CAT II non-friable ACM." The process of completing a thorough inspection of this building consisted of the following actions:

- As walkdowns of all areas were conducted, inspectors identified various materials that were suspected of containing asbestos. Walkdowns were completed in March 2017.
- Suspect building materials were evaluated for homogeneity (e.g., homogeneous areas).
- A photographic log of the walkdowns was created that is now part of the Administrative Record.
- A single SAP was developed for the 2503Z. A copy of this SAP is located in Appendix A. The SAP enabled the inspector to review the building in a systematic process and covered the following items: floors, walls, ceiling, void spaces, electrical wiring/panels, caulking, wall patches, gaskets/packings, doors, coving, thermal system insulation (TSI), surfacing material, and miscellaneous, as appropriate.
- Any areas requiring abatement were identified to management for removal prior to demolition.
- If sampling was required, the following actions would be taken:
  - The CH2M HILL Plateau Remediation Company (CHPRC) Industrial Hygiene (IH) organization database is used to track sampling. A solid waste IH database number would be assigned by the IH group for each sampling event along with individual unique numbers. This database and the sample plan tied the results back to the field. Labels for each sample would be printed and applied to the sample container.
  - All samples were taken by AHERA trained samplers, and sample numbers and locations were documented on COC forms along with the sample identification numbers.
  - A photographic log of sample locations was kept by the samplers. When a sample was taken, a photograph of the sample location was also taken.
  - Samples were then shipped to an accredited laboratory for asbestos analysis.
  - The laboratory analyzed the samples and returned the results to CHPRC IH at PFP.
  - IH conducted quality assurance/quality control of asbestos sample results.
  - Results were shipped to an AHERA certified inspector/designer for evaluation and inclusion in an inspection report.

### 1.3.2 Sample Plans

To support characterization, a single sample plan was developed for the 2503Z. This asbestos sample plan was designed to incorporate historical sampling records as well as new sample results.

A search of the records did not identify any historical samples for 2503Z. A detailed listing of all current visual evaluations can be found in Appendix B, Sample Results – Historical and Current. A summary of sample results can be found in Table 1 of this document.

# 2 Sample Information and Results

## 2.1 Historical Asbestos Analytical Data

Asbestos bulk sampling has been conducted at the PFP over many years in support of deactivation activities under the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*. Sample collection was mainly performed upon request in support of specific project activities (e.g., facility modifications and mechanical/electrical isolation). All sample collections were performed by insulators certified as AHERA Building Inspectors.

No historical samples taken from 2503Z were identified. Table 1 summarizes current sample results.

## 2.2 Asbestos Characterization Results

Based on process knowledge, manufacturing components (concrete, steel), and visual evaluations (electrical wire), no suspect ACMs were identified (Tables 2 and 3). Therefore, no samples were taken. No ACM is present in this facility. No further action is required.

Visual evaluation results are included in Appendix B of this report.

Table 1. Summary of Sample results for the 2503Z

| 2503Z | Visual Evaluation | Historical | Analytical (Lab) Samples | Process Knowledge | Positive | Category | Total Samples | Results | Extent |
|---|---|---|---|---|---|---|---|---|---|
| Floors/ concrete | 1 | 0 | 0 | 0 | 0 | N/A | 1 | NAD | N/A |
| Coving; not present | 0 | 0 | 0 | 1 | 0 | N/A | 1 | NAD | N/A |
| Walls/panels; not present | 0 | 0 | 0 | 1 | 0 | N/A | 1 | NAD | N/A |
| Ceiling; not present | 0 | 0 | 0 | 1 | 0 | N/A | 1 | NAD | N/A |
| Miscellaneous; wall/pipe covering | 0 | 0 | 0 | 1 | 0 | N/A | 1 | NAD | N/A |
| Electrical | 1 | 0 | 0 | 0 | 0 | N/A | 1 | NAD | N/A |
| Caulking; not present | 0 | 0 | 0 | 1 | 0 | N/A | 1 | NAD | N/A |
| TSI; not present | 0 | 0 | 0 | 1 | 0 | N/A | 1 | NAD | N/A |

Table 1. Summary of Sample results for the 2503Z

| 2503Z | Visual Evaluation | Historical | Analytical (Lab) Samples | Process Knowledge | Positive | Category | Total Samples | Results | Extent |
|---|---|---|---|---|---|---|---|---|---|
| Gaskets/ Packings; not present | 0 | 0 | 0 | 1 | 0 | N/A | 1 | NAD | N/A |
| Doors; not present | 0 | 0 | 0 | 1 | 0 | N/A | 1 | NAD | N/A |
| **Total** | **2** | **0** | **0** | **8** | **0** | | **10** | | |

N/A = not applicable

NAD = no asbestos detected

Table 2. Summary of ACM to be Removed Prior to Demolition

| Area | Room/ Location | Field Description | Results | Category: RACM/ CAT I/ CAT II | Aerial Extent |
|---|---|---|---|---|---|
| 2503Z | North side of 234-5Z | High voltage power lines | None, no ACMs identified. | N/A | N/A |

Table 3. Listing of Category I and II ACM Remaining in 234-5Z during Demolition

| Area | Room/ Location | Field Description | Results | Category: CAT I/ CAT II | Aerial Extent |
|---|---|---|---|---|---|
| 2503Z | All areas | None. No ACMs identified. | N/A | N/A | N/A |

## 2.3 Demolition Controls for ACM in 2503Z

No suspect ACMs were identified during this inspection. If ACMs were identified, the following actions would be required:

- Wet methods will be used on ACM items during removal.
- Demolition activity will only use methods that minimize breaking, crushing, pulverizing, or reducing to powder suspected ACM during removal with heavy equipment.
- Cutting, grinding, etc., of ACM or suspected ACM will not be allowed.
- Operators will be directed to remove suspected ACM in as large of pieces as possible.
- Suspected ACM will be lowered to the ground, not dropped.
- Suspected asbestos-containing waste material (ACWM) will be segregated from other waste to the extent possible. Commingled ACWM and non-ACM waste materials will be treated as ACWM.

- ACWM will be managed in accordance with the substantive requirements of NESHAP and the U.S. Department of Transportation.
- ACWM will be kept adequately wet at all times after demolition and will be kept wet during handling and loading for transport to the disposal site. This ACWM will be transported and disposed in bulk following applicable site procedures.

# 3 Conclusions

No ACM or suspect ACM were identified in this facility by the thorough inspection.

Tables 1 summarizes the finding that no ACMs are present. Table 2 identifies all ACM that must be removed prior to demolition of the 2503Z. Table 3 identifies CAT I and CAT II ACM that will remain in the building during demolition with the approval of EPA. Since no ACM are present, no further action is needed regarding this facility.

Sampling and analysis plans with results are provided in Appendix A. Sample details can be found in Appendix B. The abbreviation NAD is used to indicate no asbestos detected. Since no samples were taken, Appendix C, Laboratory Analytical Results contains no data and is retained only for consistency. Building Inspector Certifications are provided in Appendix D.

A demolition plan was developed that describes in detail the management methods that will be used to ensure that demolition techniques will not render any ACM remaining in the building during demolition friable. Section 2.3 summarizes these controls.

Note: Section 2.3 is not applicable to the demolition of this facility.

# 4 References

40 CFR 61, "National Emission Standards for Hazardous Air Pollutants," *Code of Federal Regulations*. Available at: http://www.gpo.gov/fdsys/pkg/CFR-2010-title40-vol8/xml/CFR-2010-title40-vol8-part61.xml.

*Asbestos Hazard Emergency Response Act of 1986*, 15 USC 2641, et seq. Available at: http://www.gpo.gov/fdsys/pkg/USCODE-2009-title15/html/USCODE-2009-title15-chap53-subchapII.htm.

*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*, 42 USC 9601, et seq., Pub. L. 107-377, December 31, 2002. Available at: http://epw.senate.gov/cercla.pdf.

DOE/RL-2004-29, 2005, *Sampling and Analysis Plan for the Plutonium Finishing Plant Above-Grade Structures*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=DA236741 .

DOE/RL-2011-03, 2016, *Removal Action Work Plan for the Deactivation, Decontamination, Decommissioning, and Demolition of the Plutonium Finishing Plant Complex*, Rev. 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at: http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0077210H.

# Appendix A

# Sampling and Analysis Plans with Results

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**Sample Location: 2503Z, Electrical distribution system is a fenced gravel pad with four concrete bases which hold the metal high voltage power poles. The fenced gravel pad is 18 feet by 75 feet and is located north of 234-5Z. The four concrete bases are 3 feet square. This Sample plan is based on Historical data (file search, photographs, engineering plans etc.) and walk downs completed in May 2017. An AHERA trained inspector will verify accuracy during the sampling event and is authorized to modify this plan in the field as required. All sampling will be conducted in accordance with IHSP-D&D-003, Determination Sampling for Presumed Asbestos-Containing Material. Sampling to be conducted by AHERA certified inspector. Photographs will be taken of each sample location and a unique SWIHDs number will be assigned to each room for each sample phases.**

| SYSTEM / SWIHDs # | DIRECTIONS for sampling/evaluation and a DESCRIPTION of the material. | VERIFICATION Present Not accessible | | Sample required | Results | CAT I/ CAT II/ RACM | Homogenous material? | Condition of material sampled: Good or Poor | Extent of material sampled (sq. ft. or linear feet) |
|---|---|---|---|---|---|---|---|---|---|
| | | Present | Not accessible | | | | | | |
| Floors/mastic | **DIRECTIONS:** Identify flooring material - If tile or linoleum - schedule for sampling. Exceptions: Process knowledge, Previous Sampling or determined to be PACM because of radiological conditions. | | | | | | | | |
| Visual Verification | Gravel base with four gravel bases. | YES | | NO | NAD | N/A | N/A | N/A | N/A |
| Coving/ mastic | | | | | | | | | |
| Process Knowledge | Not present | YES | | NO | NAD | N/A | N/A | N/A | N/A |
| Walls | **DIRECTIONS:** Identify wall construction material, sample if anything other than concrete. | | | | | | | | |
| Process Knowledge | Not present | YES | | NO | NAD | N/A | N/A | N/A | N/A |
| Ceiling | **DIRECTIONS:** Gypsum board. Covered with a hard paper like finish. | | | | | | | | |
| Process Knowledge | Not present | YES | | NO | NAD | N/A | N/A | N/A | N/A |
| Roof | **DIRECTIONS:** Area must be investigated for various ACM items (e.g. sprayed on insulation, textured coating, coated piping, coated ducting, etc.). | | | | | | | | |
| Process Knowledge | Not present | YES | | NO | NAD | N/A | N/A | N/A | N/A |

**Sample Location: 2503Z, Electrical distribution system is a fenced gravel pad with four concrete bases which hold the metal high voltage power poles. The fenced gravel pad is 18 feet by 75 feet and is located north of 234-5Z. The four concrete bases are 3 feet square. This Sample plan is based on Historical data (file search, photographs, engineering plans etc.) and walk downs completed in May 2017. An AHERA trained inspector will verify accuracy during the sampling event and is authorized to modify this plan in the field as required. All sampling will be conducted in accordance with IHSP-D&D-003, Determination Sampling for Presumed Asbestos-Containing Material. Sampling to be conducted by AHERA certified inspector. Photographs will be taken of each sample location and a unique SWIHDs number will be assigned to each room for each sample phases.**

| SYSTEM / SWIHDs # | DIRECTIONS for sampling/evaluation and a DESCRIPTION of the material. | VERIFICATION Present | Not accessible | Sample required | Results | CAT I/ CAT II/ RACM | Homogenous material? | Condition of material sampled: Good or Poor | Extent of material sampled (sq. ft. or linear feet) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| **Electrical / wire and panels** | **DIRECTIONS: PRIOR TO SAMPLING ANY ELECTRICAL MATERIAL (WIRE/PANELS/COMPONENTS), THE SYSTEM MUST BE COLD AND DARK AND VERIFIED AS SUCH BY AN ELECTRICIAN.** Evaluate electrical wires from conduit, junction boxes or panels for presence of asbestos. Project to make determination (Sample or treat as PACM). If the Project wants to leave the wiring in place during demolition, the Project must determine: 1) whether the wire is ACM or not; 2) presume the wire is PACM and apply for a Justification from EPA (we would need to know how much wire is in place and its condition.) | | | | | | | | |
| | Electrical wire in conduit and panels. Identify types of wiring present and PACM in panel boxes. Sample each variety of wire; estimate the quantity of wire present; Sample or identify any PACM in electrical boxes/panels. Units built in 2000. Conducted a Visual Evaluation by opening access panels. Wiring and components were not suspect. No samples required. | | | | | | | | |
| **Visual Evaluation** | **Electrical wire. A sample of the wire was examined. The coating was rubber and the copper lines wrapped in lead. No suspect ACMs were present.** | **YES** | | **NO** | **NAD** | **N/A** | **N/A** | **N/A** | **N/A** |
| | | | | | | | | | |
| **Caulking** | **DIRECTIONS: Sample each type of caulk. Miscellaneous each type of caulk; two samples.** | | | | | | | | |
| **Process Knowledge** | **Not present** | **YES** | | **NO** | **NAD** | **N/A** | **N/A** | **N/A** | **N/A** |
| | | | | | | | | | |
| **Wall Patches** | DIRECTIONS: Identify all areas where pipe penetrations through wall have been patched. If results show material is predominantly asbestos, handle all remaining patches as PACM. If that determination is made, the inspector will have to identify all patches (their size and number). This information will be included in a Justification to EPA for leaving them during demolition. | | | | | | | | |
| **Process Knowledge** | **Not present** | **NO** | | **NO** | **NAD** | **N/A** | **N/A** | **N/A** | **N/A** |
| | | | | | | | | | |
| **Gaskets/ packings** | **DIRECTONS: Gaskets are Category 1 material provided they are in good condition. When identified, note the condition of gaskets / packings. This would include any gaskets associated with Gloveboxes that will be removed during demolition.** | | | | | | | | |
| **Process Knowledge** | **Not present** | **YES** | | **NO** | **NAD** | **N/A** | **N/A** | **N/A** | **N/A** |
| | | | | | | | | | |
| **Doors** | **DIRECTIONS:** Project to make determination (Sample or treat as PACM). Project must determine how to manage these doors. (Options include: Remove prior to demolition, seek a Justification to leave during demolition or sample each door.) **Identify each door and its location.** | | | | | | | | |

**Sample Location: 2503Z, Electrical distribution system is a fenced gravel pad with four concrete bases which hold the metal high voltage power poles. The fenced gravel pad is 18 feet by 75 feet and is located north of 234-5Z. The four concrete bases are 3 feet square. This Sample plan is based on Historical data (file search, photographs, engineering plans etc.) and walk downs completed in May 2017. An AHERA trained inspector will verify accuracy during the sampling event and is authorized to modify this plan in the field as required. All sampling will be conducted in accordance with IHSP-D&D-003, Determination Sampling for Presumed Asbestos-Containing Material. Sampling to be conducted by AHERA certified inspector. Photographs will be taken of each sample location and a unique SWIHDs number will be assigned to each room for each sample phases.**

| SYSTEM / SWIHDs # | DIRECTIONS for sampling/evaluation and a DESCRIPTION of the material. | VERIFICATION Present | Not accessible | Sample required | Results | CAT I/ CAT II/ RACM | Homogenous material? | Condition of material sampled: Good or Poor | Extent of material sampled (sq. ft. or linear feet) |
|---|---|---|---|---|---|---|---|---|---|
| Process Knowledge | Not present | YES | | NO | NAD | N/A | N/A | N/A | N/A |
| | | | | | | | | | |
| Miscellaneous | DIRECTIONS: Look for PACM not previously identified in this sample plan. If present, sample and record material sampled. | | | | | | | | |
| Process Knowledge | Flash guards/ not present | NO | | NO | NAD | N/A | N/A | N/A | N/A |
| | | | | | | | | | |
| TSI piping | DIRECTIONS: If TSI is present, confirm that it is scheduled for abatement prior to demolition. | | | | | | | | |
| Process Knowledge | Not present | YES | | NO | NAD | N/A | N/A | N/A | N/A |

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# Appendix B

# Sample Results – Historical and Current

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| Date Sampled | RJLEE GROUP Sample # | Site wide Industrial Hygiene Database No. | Area (Name or No.) | Room No. | Field Description | Results / Sample Layer No. and Description | NESHAP Category (RACM, Cat 1 and Cat 2) | Extent of ACM [m2 (ft2) or Linear m (ft.)] | Poor Condition (Y or N) | Determination Method | Laboratory | Results / Material | Results / Percentage (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **252-Z-1 Transformer Facility** | | | | | | | | | | | | | |
| 11-May-17 | NA | NA | 2503Z | Slab | Floor/ concrete slab supporting transformers and grounding cabinets. | NAD | NA | NA | NA | Visaual Verification AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | entire facility | Coving/ Mastic: Not present | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | entire facility | Walls; not present. | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | entire facility | Ceiling; not present. | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | entire facility | Roof; not present. | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | Slab | Electrical wiring | NAD | NA | NA | NA | Visaual Verification AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | entire facility | Wall patches; not present | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | entire facility | Gaskets/packings; | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | entire facility | Doors; not present | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |
| 11-May-17 | NA | NA | 2503Z | entire facility | Miscellaneous; flash guards. Not present. | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |
| 1-Jun-17 | NA | NA | 2503Z | entire facility | TSI piping; not present. | NAD | NA | NA | NA | Process Knowledge; AHERA Trained Inspector | NA | NA | NA |

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# Appendix C

# Laboratory Analytical Results

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| Date Sampled | RJLEE GROUP Sample # | Site wide Industrial Hygiene Database No. | Area (Name or No.) | Room No. | Field Description | Results / Sample Layer No. and Description | NESHAP Category (RACM, CAT I and CAT II) | Extent of ACM [m2 (ft2) or Linear m (ft.)] | Poor Condition (Y or N) | Determination Method | Laboratory | Results / Material | Results / Percentage (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| There were no samples taken that required laboratory analysis. Appendix C is included in this report for consistency, only. | | | | | | | | | | | | | |

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# Appendix D

# Building Inspector Certifications

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Certificate of Completion
This is to certify that
**William G. Cox**

Has satisfactory Completed 8 hours of Refresher training as an
AHERA Project Designer
In compliance with TSCA Title II AHERA 40 CFR Part 763 &
Missouri State RSMo 643.230

RH WELCH INC
Michael J. Moore
Training Director/Instructor

Certificate of Completion
This is to certify that
**Ted A. Hopkins**

Has satisfactory Completed 4 hours of refresher training as an
AHERA Building Inspector
**In compliance with TSCA Title II AHERA 40 CFR Part 763 &**
**Missouri State RSMo 643.230**

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Michael J. Moore
Training Director/Instructor

Certificate of Completion
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Has satisfactory Completed 24 hours of Initial training as an
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In compliance with TSCA Title II AHERA 40 CFR Part 763 &
Missouri State RSMo 643.230

R.H. Welch, Inc.
Robert H. Welch PhD (ABD
Safety Engineer/Consultant

Certificate of Completion
This is to certify that
**James M. Leary**

Has satisfactory Completed 24 hours of Initial training as an
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RH WELCH INC
Michael J. Moore
Training Director/Instructor

**Course Presented By R. H. Welch, Inc.**
AHERA Project Designer Refresher

RH WELCH INC.

**Certificate # RHW-PDR-16-010**

ourse Date: **March 11, 2016**
efresher Required By: **March 11, 2017**

02 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

**Course Presented By R. H. Welch, Inc.**
AHERA Building Inspector Refresher

RH WELCH INC.

**Certificate # RHW-BIR-16-017**

Course Date: **February 4, 2016**
Refresher Required By: **February 4, 2017**

96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

**Course Presented By R. H. Welch, Inc.**
AHERA Building Inspector Refresher

RH WELCH INC.

**Certificate # RHW-BIR-16-048**

urse Date: **May 3, 2016**
fresher Required By: **May 3, 2017**

)2 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

**Course Presented By R. H. Welch, Inc.**
AHERA Project Designer Refresher

R.H. Welch, Inc.

**Certificate # RHW-PD-15-006**

Course Date: **3-31-15 – 4-2-15**
Refresher Required By: **4-2-16**

96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

**Course Presented By R. H. Welch, Inc.**
AHERA Project Designer Refresher

R.H. Welch, Inc.

**Certificate # RHW-PD-15-007**

Course Date: **3-31-15 – 4-2-15**
Refresher Required By: **4-2-16**

Course Presented By R. H. Welch, Inc.
AHERA Building Inspector Refresher

R.H. Welch, Inc.

**Certificate # RHW-BI-15-004**

Course Completion Date: **2-19-15**
Refresher Required By: **2-19-16**

96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

Course Presented By R. H. Welch, Inc.
AHERA Building Inspector Refresher

R.H. Welch, Inc.

**Certificate # RHW-BI-15-005**

Course Completion Date: **2-19-15**
Refresher Required By: **2-19-16**

96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

**Course Presented By R. H. Welch, Inc.**
AHERA Project Designer Refresher

RH WELCH INC.

**Certificate # RHW-PDR-16-011**

Course Date: **March 2, 2016**
Refresher Required By: **March 2, 2017**

96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

Certificate of Completion
This is to certify that
**James M. Leary**

Has satisfactory Completed 4 hours of refresher training as an
AHERA Building Inspector
**In compliance with TSCA Title II AHERA 40 CFR Part 763 & Missouri State RSMo 643.230**

RH WELCH INC.

Michael J. Moore
Training Director/Instructor

**Course Presented By R. H. Welch, Inc.**
AHERA Project Designer Refresher

RH WELCH INC.

**Certificate # RHW-PDR-16-012**

Course Date: **March 22, 2016**
Refresher Required By: **March 22, 2017**

96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

Certificate of Completion
This is to certify that
**James M. Leary**

Has satisfactory Completed 8 hours of Refresher training as an
AHERA Project Designer
In compliance with TSCA Title II AHERA 40 CFR Part 763 & Missouri State RSMo 643.230

RH WELCH INC.

Michael J. Moore
Training Director/Instructor

**Course Presented By R. H. Welch, Inc.**
AHERA Building Inspector Refresher

RH WELCH INC.

**Certificate # RHW-BIR-16-018**

Course Date: **February 4, 2016**
Refresher Required By: **February 4, 2017**

96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com

Certificate of Completion
This is to certify that
**James M. Leary**

Has satisfactory Completed 24 hours of Initial training as an
AHERA Building Inspector
**In compliance with TSCA Title II AHERA 40 CFR Part 763 & Missouri State RSMo 643.230**

R.H. Welch, Inc.

Michael J. Moore
Instructor/Consultant

Course Presented By R. H. Welch, Inc.
AHERA Building Inspector Refresher

R.H. Welch, Inc.
**Certificate # RHW-BI-15-005**

Course Completion Date: **2-19-15**
Refresher Required By: **2-19-16**

**96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com**

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Robert H. Welch PhD (ABD
Safety Engineer/Consultant

**Course Presented By R. H. Welch, Inc.**
AHERA Project Designer Refresher

R.H. Welch, Inc.
**Certificate # RHW-PD-15-007**

Course Date: **3-31-15 – 4-2-15**
Refresher Required By: **4-2-16**

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**William G. Cox**

Has satisfactory Completed 24 hours of Initial training as an
**AHERA Building Inspector**
**In compliance with TSCA Title II AHERA 40 CFR Part 763 & Missouri State RSMo 643.230**

R.H. Welch, Inc.

Michael J. Moore
Instructor/Consultant

**Course Presented By R. H. Welch, Inc.**
**AHERA Building Inspector Refresher**

R.H. Welch, Inc.
**Certificate # RHW-BI-15-003**

Course Completion Date: **2-19-15**
Refresher Required By: **2-19-16**

**96902 E. Kaitlyn Rd. Kennewick, WA 99338 m.j.moore@frontier.com**

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AHERA Project Designer Refresher

R.H. Welch, Inc.
**Certificate # RHW-PD-15-004**

Course Date: **3-31-15 – 4-2-15**
Refresher Required By: **4-2-16**