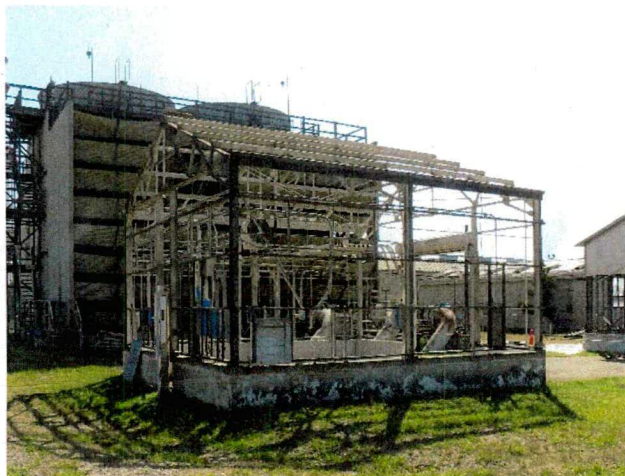


## Engineering Survey & Interference Report for Building 482-2D, Electrical Switchgear Building



Prepared by: W.B. Griffin Date: 11/3/2020  
W.B. Griffin  
EC&ACP Engineering  
Environmental Compliance & Area Completion Projects

Reviewed by: J.K. Blankenship Date: 11/3/20  
J. K. Blankenship  
EC&ACP Engineering  
Environmental Compliance & Area Completion Projects

Approved: R.S. Shirley Date: 11/4/2020  
R. S. Shirley  
Manager, EC&ACP Projects  
Environmental Compliance & Area Completion Projects

Approved: M.I. Terronez Date: 11/04/2020  
M. I. Terronez  
EC&ACP Engineering Manager  
Environmental Compliance & Area Completion Projects

Approved: T.O. Oliver Date: 11-5-2020  
T.O. Oliver  
EC&ACP Engineering Chief Engineer  
Environmental Compliance & Area Completion Projects

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## 1.0 Introduction

The purpose of this survey / report is to provide guidance for the safe demolition of Building 482-2D, an approximately 580 square foot single story building with a steel frame, corrugated cementitious siding and a corrugated cementitious roof built in the early 1950s, as well as meeting the requirements of OSHA Standard 1926.850(a).

## 2.0 Background

### 2.1 Facility Description

This document addresses Building 482-2D, Electrical Switchgear Building.

Building 482-2D is an approximately 580 square foot single story building with a steel frame, corrugated cementitious siding and a corrugated cementitious roof built in the early 1950s. It is located north of the 485-D Cooling Tower in the northern section of 400-D Area of the Savannah River Site (SRS).

- The building is a steel frame structure on a concrete slab.
- The siding and the roof of the building were corrugated asbestos but both have been removed by the asbestos abatement contractor working under G-SOW-D-00009, the Statement of Work for the Abatement of Asbestos Containing Material in D-Area Buildings 480-3D, 482-2D, 484-4D, 485-D and 707-4D.
- Electricity was provided to the structure, but all wires were cut and/or removed during deactivation in 2013 (Reference 5.5).

### 2.2 Facility Condition

Based on visual inspection on June 3, 2020, the structure as defined in Reference 5.1 is in good condition, and there is no potential for an unplanned collapse of the structure either due to forces of nature and/or vibrations created by movement of heavy equipment in proximity to the building.

The proposed decommissioning end-state for this facility which has no defined or anticipated future missions, is decommissioning of the above grade structure to grade.

On October 29, 2019, an asbestos inspection was conducted on Building 482-2D (Q-APG-D-00006, Reference 5.3), with the results being there were numerous areas of asbestos containing materials (ACM) and presumed asbestos containing materials (PACM. See Section 3.1 for discussion on asbestos abatement per G-SOW-D-00009 (Reference 5.4) prior to building demolition.

- There are no potential hazards from other structures in the area.

- There are no overhead or underground powerlines proximate the building.
- Any underground lines in the general vicinity of the building are deep enough that there is no potential for damage due to heavy equipment.
- There are no fall hazards associated with Building 482-2D.

### **3.0 Discussion**

#### **3.1 General**

All demolition work shall meet the requirements of 29CFR1926 Subpart T and SRS Manual 8Q, Procedure 104. All personnel performing demolition work shall be knowledgeable of these documents.

Other hazards not specifically identified in the engineering survey are mitigated or prevented by site programs as described in SRS Manual 1-01, MP 1.22 Integrated Safety Management System.

All other hazardous materials have already been removed or will be removed prior to demolition (References 5.4 and 5.5). All wastes generated during decommissioning shall be managed in accordance with SRS procedures. Barricades will be established in accordance with Manual 8Q, Procedure 9 prior to demolition.

#### **3.2 Interferences**

There are also no electric lines, poles & guy wires or communications lines close to or associated with this building. Prior to decommissioning, 482-2D shall be confirmed isolated and disconnected from any associated utilities and rendered cold and dark (C&D) in accordance with EC&ACP guidelines and as noted in References 5.6 and 5.7. See also Reference 5.8 (SC-7373, Site Clearance Permit) for additional information.

Appendix A, Figures 1-4, provide a general lay-out of the area, interfacing facilities/utilities within proximity and defines the demolition boundary. All underground utilities are buried deep enough that the equipment may safely operate over them (See Figure 1)

#### **3.3 Hazardous Energy**

There is no hazardous energy associated with Building 482-2D, (References 5.6 and 5.7).

### **3.4 Unplanned Collapse**

There is no potential for an unplanned collapse associated with the Decommissioning of Building 482-2D.

## **4.0 Summary / Conclusions**

The building structure has no future mission and the end state is decommissioning of all above grade structures to the slab. (Reference 5.1). The structure can be demolished using a track hoe mounted hydraulic shear; the shear will also size reduce the material and load into skip pans. A grappler and front-end loaders may also be used to load material into skip pans. The area will be cleaned up. The equipment operators should utilize a flag person so as not to make contact with facilities/services within close proximity of the demolition area. This method of demolishing the structure with the hydraulic shear will ensure that most of the rubble lands inside the building footprint.

This engineering survey was performed to determine the condition of the structure prior to demolition. The results of the survey are that the structure is sound and conventional demolition may proceed.

## **5.0 References**

- 5.1** G-FDE-D-00050, Rev. 0, April 7, 2020, "Facility Decommissioning Evaluation Building 485- D and 482-2D, D-Area Cooling Tower and Electrical Switchgear Building"
- 5.2** V-PMP-D-00016, Rev. 1, dated 11/02/20, "Decommissioning End Points Document Building 480-3D, Maintenance Field Office and Shop"
- 5.3** Q-APG-D-00006, Rev. 0, dated October 30, 2019, "Baseline Asbestos Inspection Report of 482-2D"
- 5.4** G-SOW-D-00009, Rev. 0, dated 4/7/2020, "Statement of Work for the Abatement of Asbestos Containing Material in D-Area Buildings 480-3D, 482-2D, 484-4D, 485-5D and 707-4D"
- 5.5** V-PCOR-D-00042, Rev. 0, dated 7/1/2014, "Deactivation Project Final Report Building 484-D Powerhouse and Ancillary Buildings"
- 5.6** E-SDD-D-00001, Rev. 1, dated August 19, 2020, "Verification of Hazardous Energy Isolations for Building 484-D Powerhouse and Ancillary Buildings"
- 5.7** E-SDD-D-00002, Rev. 0, dated August 17, 2020 "Closeout of Verification Document for Building 484-D Powerhouse and Ancillary Buildings"
- 5.8** SC-7873, Rev. 0, dated 7/8/2020, "Site Clearance Permit for Buildings 482-2D and 485-D"

Appendix A – General Layout and Interfacing Facilities

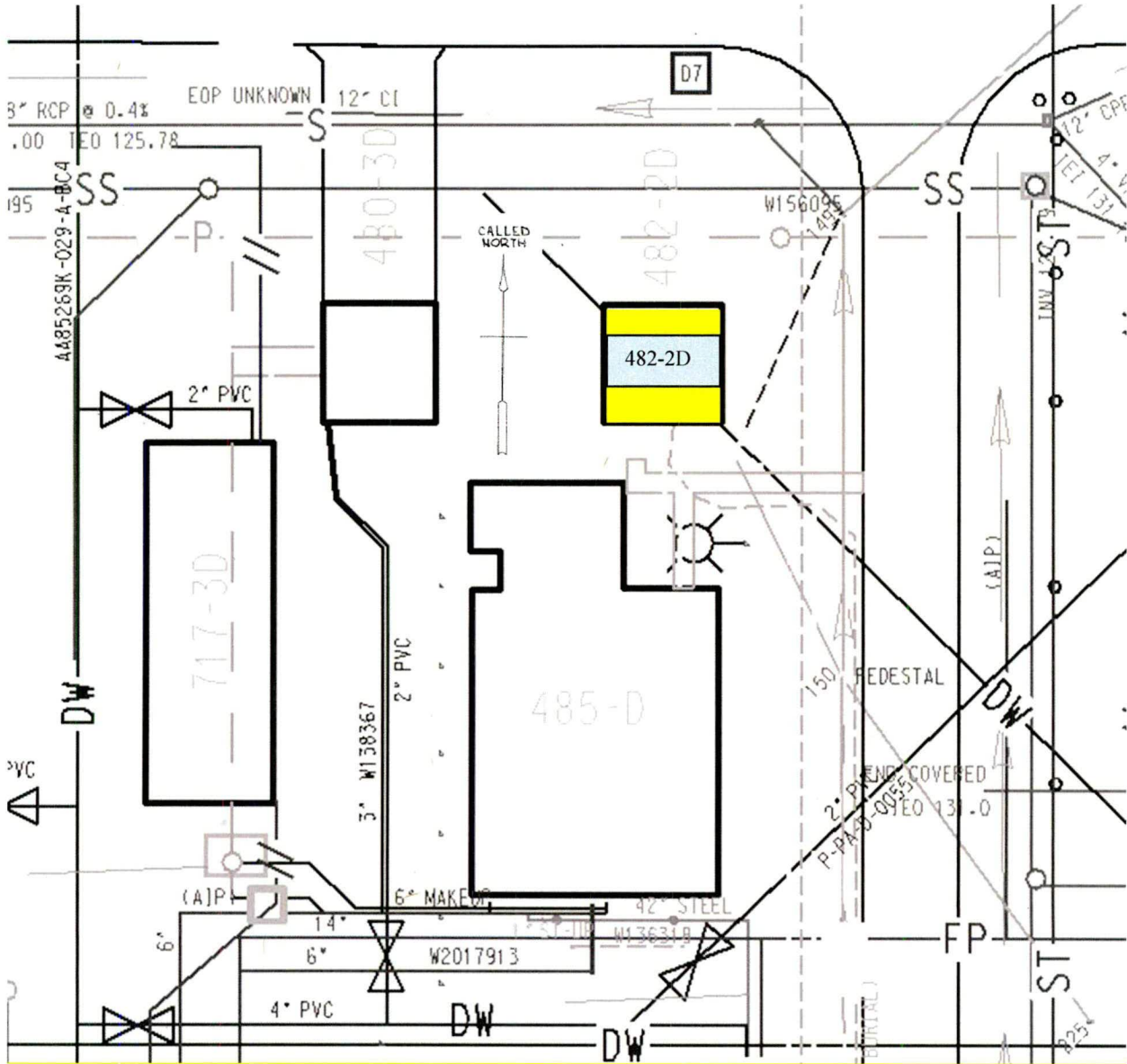
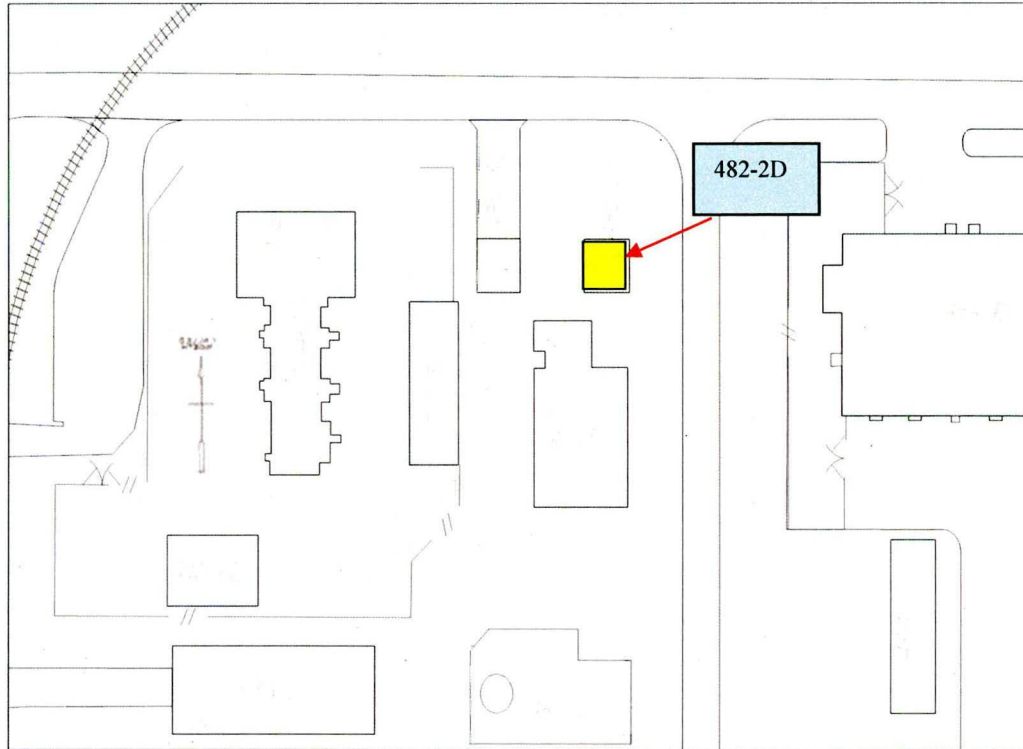


Figure 1: Excerpt from Site Map for D-Area

**Appendix A – General Layout and Interfacing Facilities**



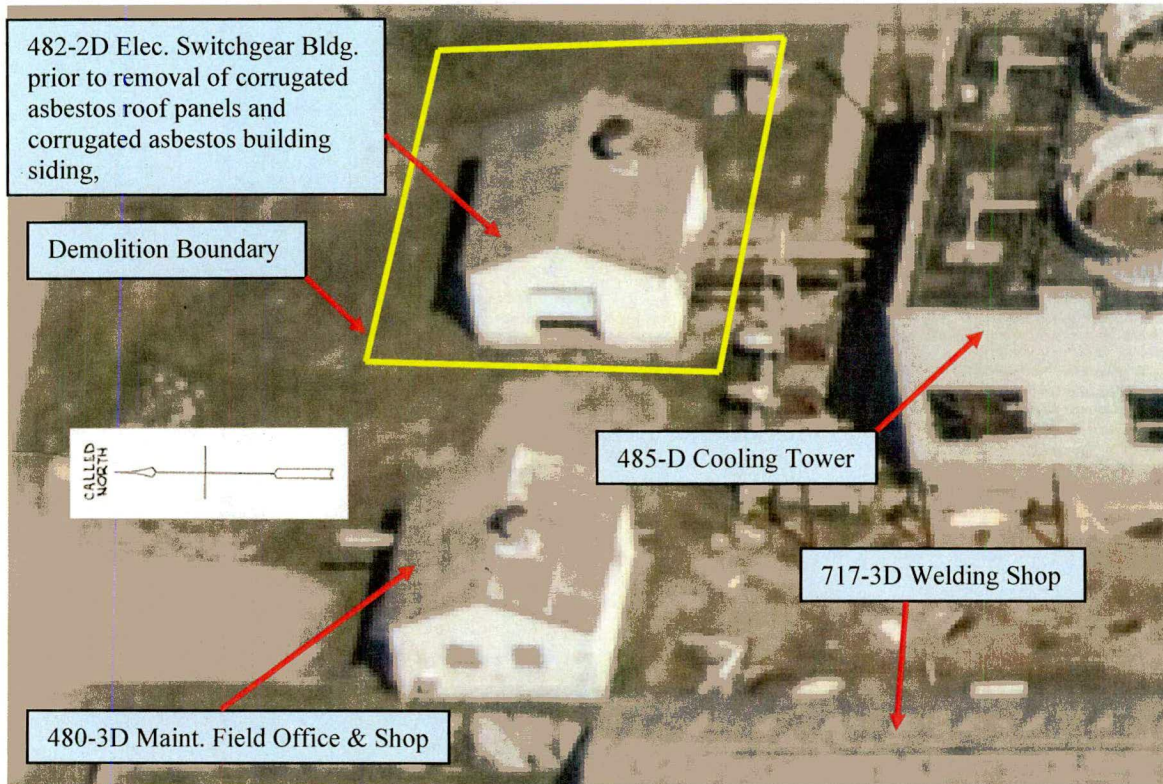
**Figure 2: Building 482-2D Location**

**Appendix A – General Layout and Interfacing Facilities**



**Figure 3: Photo of Building 482-2D Looking West (East Side of Building)**

**Appendix A – General Layout and Interfacing Facilities**



**Figure 4: Aerial View of 482-2D and Surrounding Buildings/Facilities**