

## Engineering Survey & Interference Report for Building 710-16D, Storage Building



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**Printed in the United States of America**

*Prepared for*  
**U.S. Department of Energy**  
**and**  
**Savannah River Nuclear Solutions LLC**  
**Aiken, South Carolina**



## 1.0 Introduction

The purpose of this survey / report is to provide guidance for the safe demolition of Building 710-16D, a storage building with no ancillary structures located in the west central section of the 400-D Area northwest of the 484-D Powerhouse, as well as meeting the requirements of OSHA Standard 1926.850(a).

## 2.0 Background

### 2.1 Facility Description

This document addresses Building 710-16D, Storage Building.

Building 710-16D is wood frame construction on a concrete foundation, but not a concrete slab. The floor in the structure consists of some concrete that extends inward beyond the walls in many locations. The remaining floor space is natural dirt.

- Building 710-16D measures to be 49.5' long x 31.76' wide (approx. 1,580 square feet).
- Building 710-16D has an asphalt shingle roof and vinyl siding.
- The building has eight storage areas, and an additional "attic" storage with ladder access in Storage Room 1. See Figure 1 in Appendix A for layout of the building.
- Construction of the facility was completed in 1993.
- There was no domestic water or sewer supplied to the structure.
- The building has no associated sumps or drains. Further, the building has no services to or from the facility.
- The building had electricity supplied but it was shut off and the building isolated in 2013 during deactivation (Reference 5.4).

### 2.2 Facility Condition

Based on visual inspection on October 5, 2020, the structure as defined in References 5.1 and 5.2 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 demolition to the building's concrete foundation.

On October 15, 2020, a follow-up asbestos inspection was conducted on Building 710-16D (Q-APG-D-00019, Reference 5.3) to evaluate the electrical wire insulation and other electrical components that were inaccessible during the November 2019 inspection. The follow-up inspection revealed that there are no

asbestos containing materials (ACM) or presumed asbestos containing materials (PACM) in the wiring, electrical panel, dry transformer or any other locations in the building.

- 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 710-16D.

### **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.

#### **3.2 Interferences**

As noted in Section 2.2, all exterior electrical components were removed during deactivation in 2013. Also, there are no domestic water, fire water, or sanitary sewers associated with this building. There are no electric lines, poles & guy wires or communications lines close to or associated with this building. Prior to decommissioning 710-16D shall be confirmed isolated and disconnected from any associated utilities and rendered cold and dark (C&D) (References 5.5 and 5.6) in accordance with EC&ACP guidelines.

Appendix A provides 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.

#### **3.3 Hazardous Energy**

There is no hazardous energy associated with Building 710-16D.

### **3.4 Unplanned Collapse**

There is no potential for an unplanned collapse associated with the demolition and removal of Building 710-16D.

## **4.0 Summary / Conclusions**

The building structure has no future mission and the end state is demolition to the building's concrete foundation (References 5.1 and 5.2). The structure may 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-00016, Rev. 0, dated 4/21/2020, "Facility Decommissioning Evaluation Building 710-16D, Storage Building"
- 5.2** V-PMP-D-00018, Rev. 1, dated October 7, 2020, "Decommissioning End Points Document Building 710-16D, Storage Building"
- 5.3** Q-APG-D-00019, Rev. 1, dated October 21, 2020, "Baseline Asbestos Inspection Report of Building 710-16D"
- 5.4** V-PCOR-D-00042, Rev. 0, dated 7/1/2014, "Deactivation Project Final Report Building 484-D Powerhouse and Ancillary Buildings"
- 5.5** E-SDD-D-00001, Rev. 1, dated August 19, 2020, "Verification of Hazardous Energy Isolations for Building 484-D Powerhouse and Ancillary Buildings"
- 5.6** E-SDD-D-00002, Rev. 0, dated August 17, 2020, "Closeout of Verification Document for Building 484-D Powerhouse and Ancillary Buildings"

Appendix A – General Layout and Interfacing Facilities

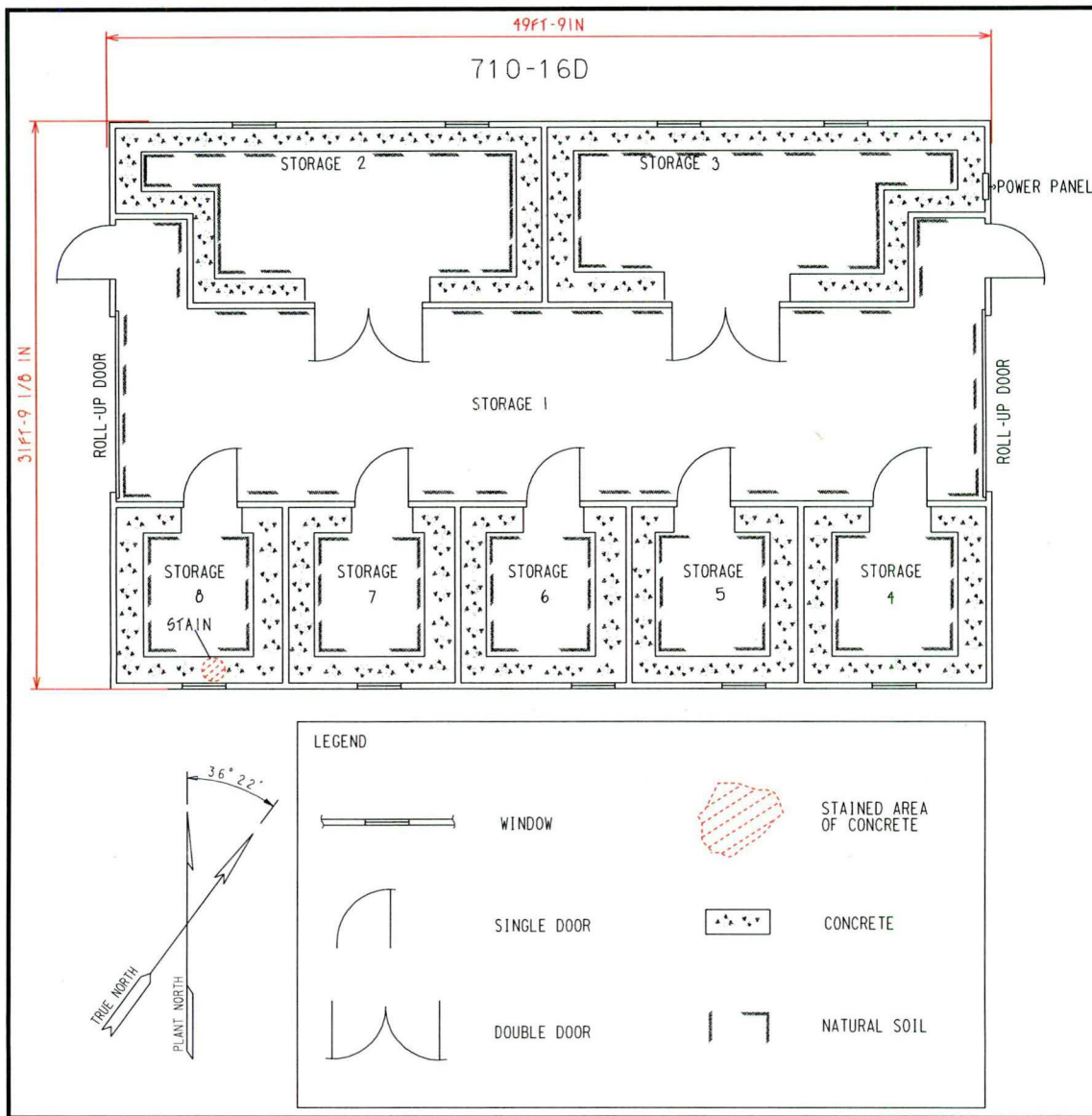


Figure 1: Building 710-16D Layout

Appendix A – General Layout and Interfacing Facilities

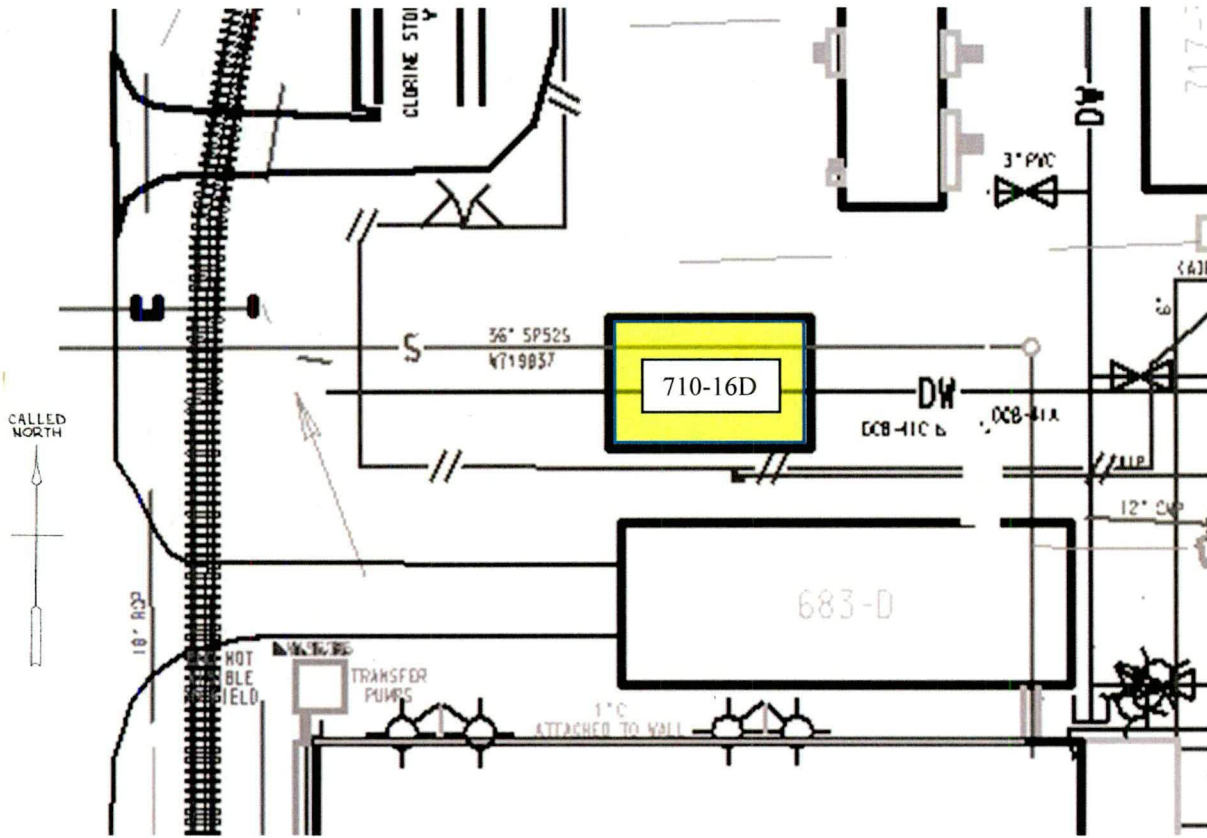


Figure 2: Building 710-16D and Surrounding Facilities/Utilities

### Appendix A – General Layout and Interfacing Facilities

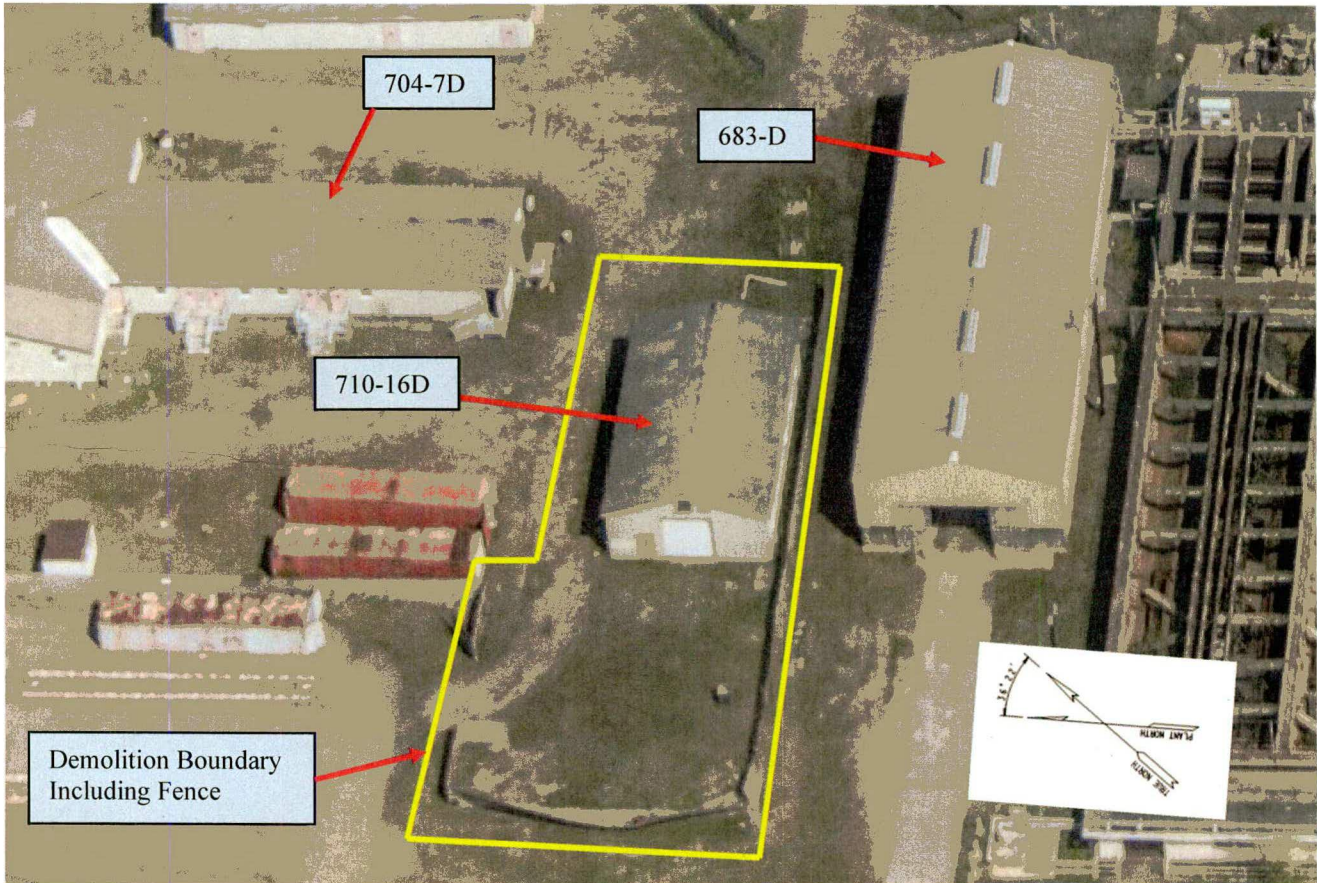


Figure 3: Aerial View of 710-16D and Surrounding Buildings