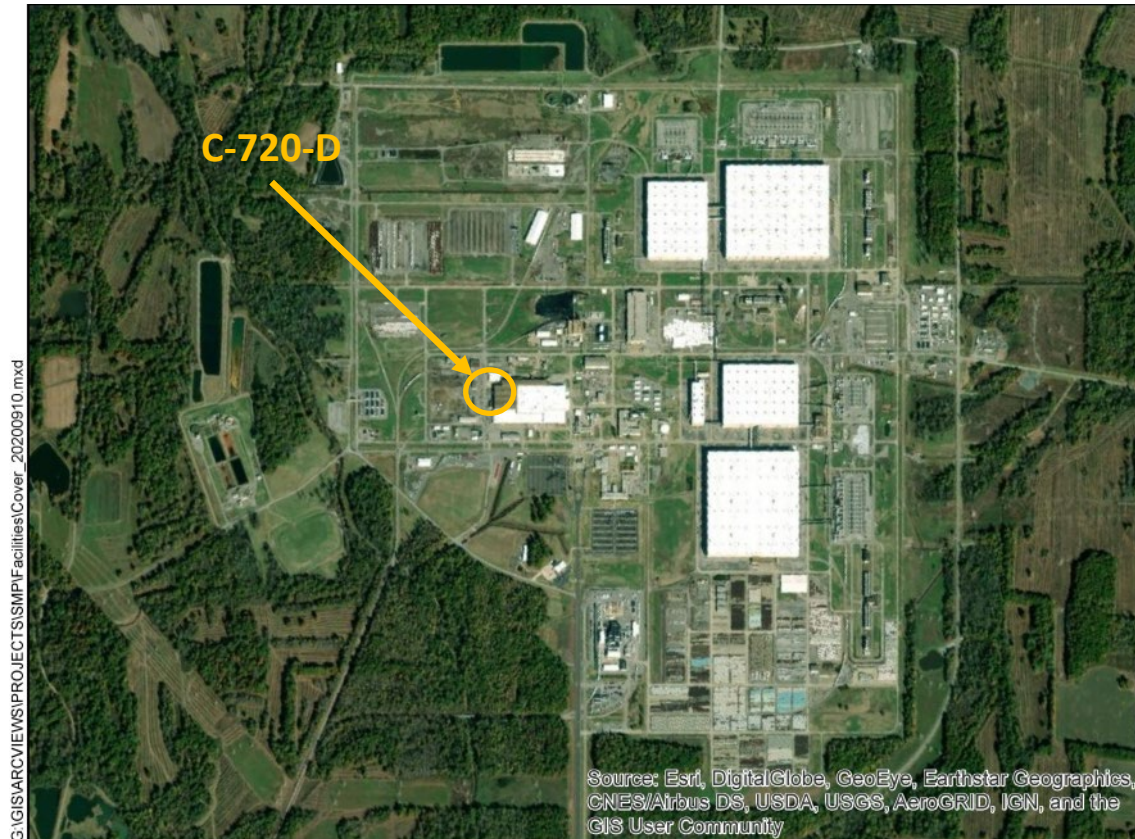


C-720-D Transformer Building



Facility Overview Briefing

July 13, 2021

Reflects consultation with EPA and Kentucky in accordance with the Site Management Plan that occurred on June 28, 2021.

Purpose

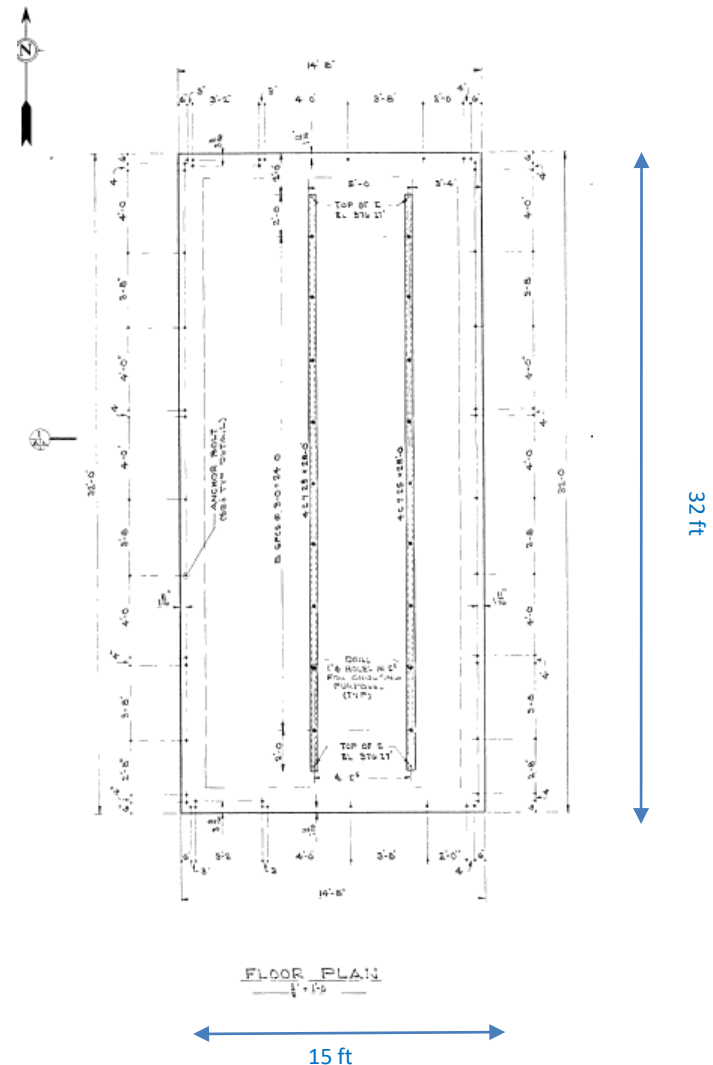
- The C-720-D Transformer Building is a candidate for future demolition and disposal, contingent upon funding priorities.
- Listed in Appendix 6 of the Site Management Plan (SMP); requires consultation with EPA and Kentucky for CERCLA screening prior to demolition.
- This presentation is intended to serve as consultation, providing the basis for demolition and disposal of the aboveground structure outside of the FFA/CERCLA process.
- The remaining slab/soils will be subject to a future CERCLA evaluation under Geographical Area (GA) 14.



C-720-D Photo: 3/2021

Construction History

- C-720-D is located within the Paducah Site security fence, west side of the C-720 Maintenance and Stores Building.
- The facility was constructed in 1970.
- The facility is constructed of prefabricated metal, on an elevated concrete slab (8-inch thick).
 - ❑ The structure is fully enclosed with pedestrian doors on the north and south ends.
 - ❑ The structure was specifically designed and constructed to house the switchgear transformer and substation located on the west side of C-720.
 - ❑ Sump pumps and floor drains were not included as part of the structure design and a facility walkdown has confirmed that no floor drains or sumps are present.
- The facility is approximately 480 ft².
 - ❑ Measuring ~ 15 ft x ~ 32 ft.



Floor Plan View: Excerpt from Engineering Drawing E-S-12291-A_0001_0000_U-011355, dated 1961

Operational History

- C-720-D has housed the switchgear transformer and substation located on the west side of C-720 from its construction in 1970 to present.
 - ❑ Transformer with a 480-volt electrical switchgear.
 - ❑ Transformer is a dry-type transformer and does not contain any oil.
 - ❑ Supplies power to C-720, C-743, and C-744 facilities.
- USEC leased the facility in the early 1990s and continued to use C-720-D to house the switchgear transformer and substation.
- C-720-D transitioned from USEC to DOE in 2014 and the facility has continued to be used for its intended purpose to house the switchgear transformer and substation located on the west side of C-720.



South Side of C-720-D



North Side of C-720-D



Interior of C-720-D

Current Status

- C-720-D continues to house the switchgear transformer and substation located on the west side of C-720 and supplies power to C-720, C-743, and C-744 facilities.
- Walkdown inspections conducted in March and April 2021 and employee interviews confirmed no unusual conditions.
 - ❑ Transformer with a 480-volt electrical switchgear.
 - ❑ Transformer is a dry-type transformer and does not contain any oil.
 - ❑ Supplies power to C-720, C-743, and C-744 facilities.
 - ❑ Facility contains a fire extinguisher, ladder, and table with additional fuses.
 - ❑ No floor sumps or floor drains are present.
 - ❑ No generator staging area (GSA) or satellite accumulation area (SAA).
 - ❑ No known chemical spills.
 - ❑ Not used for radiological storage; facility does not contain any radiological postings.



Interior View of C-720-D

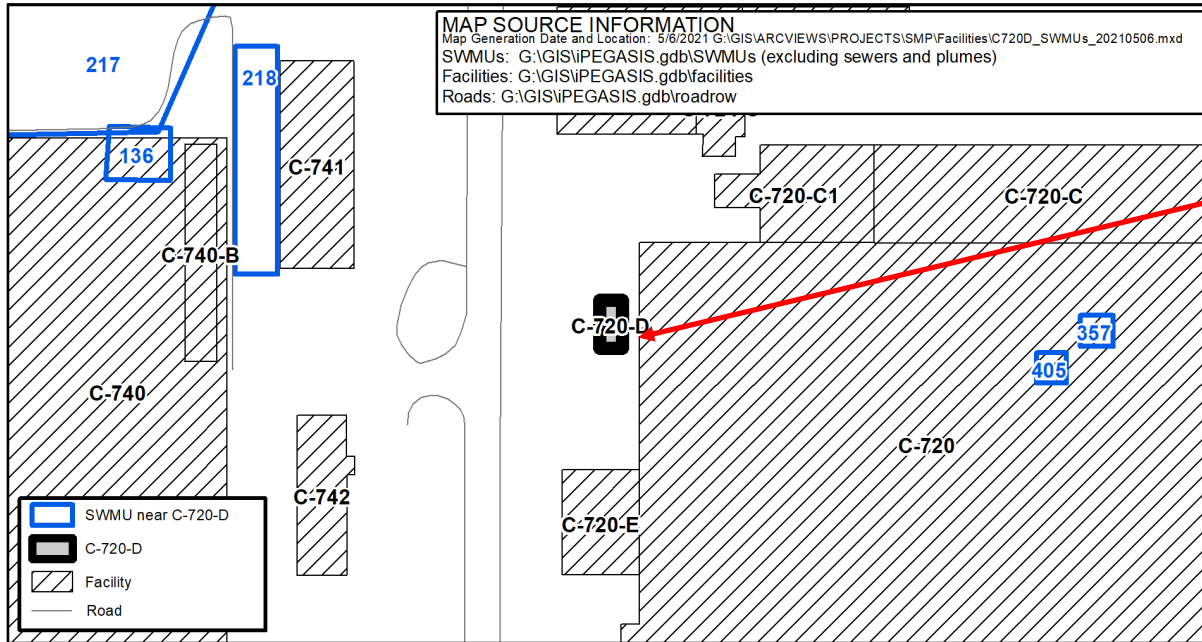


Ladder and additional fuses



Fire Extinguisher

Environmental Impacts (Solid Waste Management Units)



C-720-D is not designated as a SWMU/AOC.

SWMU No.	Facility Name	Current Status	NFA Approval By
136	C-740 TCE Spill Site	NFA	EPA and KY via WAG 1&7 ROD 8/10/1998
217	OS-06	Soils OU	
218	OS-07 slab and underlying soils	Soils and Slabs OU	
357	DMSA C-720-02	NFA	KDWM 4/24/2009
405	G-720-22	NFA	KDWM 2/14/2003

Environmental Impacts

- No information to indicate a release or threatened release of a hazardous substance that would require an evaluation for a potential response action to protect future public health or welfare or the environment.
 - ❑ C-720-D has operated as a transformer building, specifically constructed to house the switchgear transformer and substation located on the west side of C-720, since its construction in 1970 to present; currently supplying power to C-720, C-743, and C-744 facilities.
 - ❑ Building materials used for construction could contain lead-based paints and asbestos-containing materials, both of which can be effectively verified during a predemolition inspection and properly managed using standard demolition and waste management practices.
 - ❑ No history or records of chemical use or spills that would pose an environmental release threat.

Conclusion and Recommendations

- Walkdown inspection of the facility, employee interviews, and other reviewed historical information did not identify any unusual conditions that would pose a potential threat of environmental release during future demolition of the aboveground structure.
 - ❑ Deactivation will include removal of any accessible loose items being stored (to the extent practicable) prior to demolition.
 - ❑ Any floor drains will be delineated, documented, and isolated prior to demolition.
- Pending ceasing of operation, deactivation, and availability of funding, proceeding with demolition and disposal of the C-720-D facility (aboveground structure) outside of the FFA/CERCLA process, contingent upon the fact that no additional changes have occurred that would affect the CERCLA determination of the facility prior to demolition, is recommended.
- All applicable laws, regulations, and DOE procedures/protocols will be followed to ensure the demolition and disposal of the aboveground structure occurs in a safe, compliant manner, including conducting any additional radiological characterization through confirmation radiological surveys (as necessary) to support demolition and waste disposition.

Conclusion and Recommendations

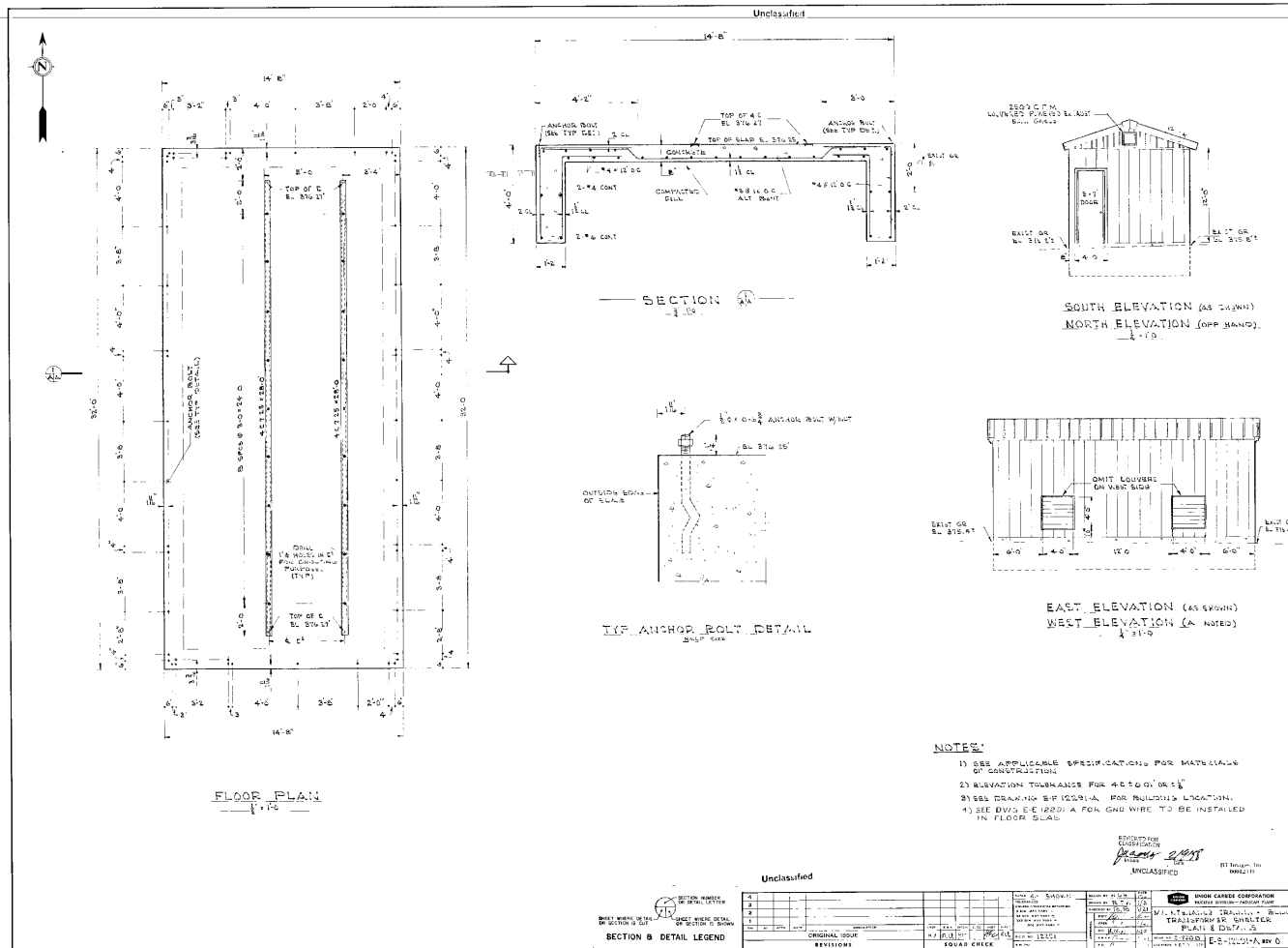
- As part of the demolition of the aboveground structure, the appropriate best management practices (BMPs) will be evaluated and implemented (as needed) to prevent/minimize the pooling and/or migration of storm water that may come into contact with any contamination that may exist on the pad/subsurface structure(s). For example, the following BMPs will be implemented as necessary:
 - ❑ Radiological surveying will occur following demolition.
 - ❑ Decontamination and/or application of fixatives and/or barriers to contaminated surfaces above regulatory posting limits.
 - ❑ Isolation measures and other types of barriers to minimize and/or control runoff/pooling of contaminated storm water [e.g., seal inlets to drains/sumps/subsurface structure(s)].

- Removal of the C-720-D facility will be documented in the appropriate annual SMP revision.

- The future evaluation conducted for GA 14 will further evaluate the potential threat of release associated with the slab/soils from the C-720-D facility.

BACKUP INFORMATION

C-720-D Engineering Drawing



Engineering Plan View Drawing: E-S-12291-A_0001_0000_U-011355

C-720-D Sources

- Engineering Drawings:
 - Provided in presentation
- Databases:
 - USEC's BPS
 - Issues Management System
 - Regulatory Compliance Archive Spill Log (pre-2018)
 - PCB Database (1989 – 2021)
 - Active GSAs and SAAs Master List
 - Asbestos Walkdown (October 2020)
- Employee Communication:
 - Facility Manager (42 years plant expertise)
 - Compliance Subject Matter Expert (45 years plant expertise)
- Documents:
 - Paducah Gaseous Diffusion Plant Sitewide Strategy Facility Background Information, FPDP-RPT-0021, May 2016
 - Report for Environmental Audit Supporting Transition of the Gaseous Diffusion Plants to the United States Enrichment Corporation, DOE/OR/1087&V5, June 1993
 - Paducah Asbestos Survey Executive Summary (Lee Wan Report), October 1990