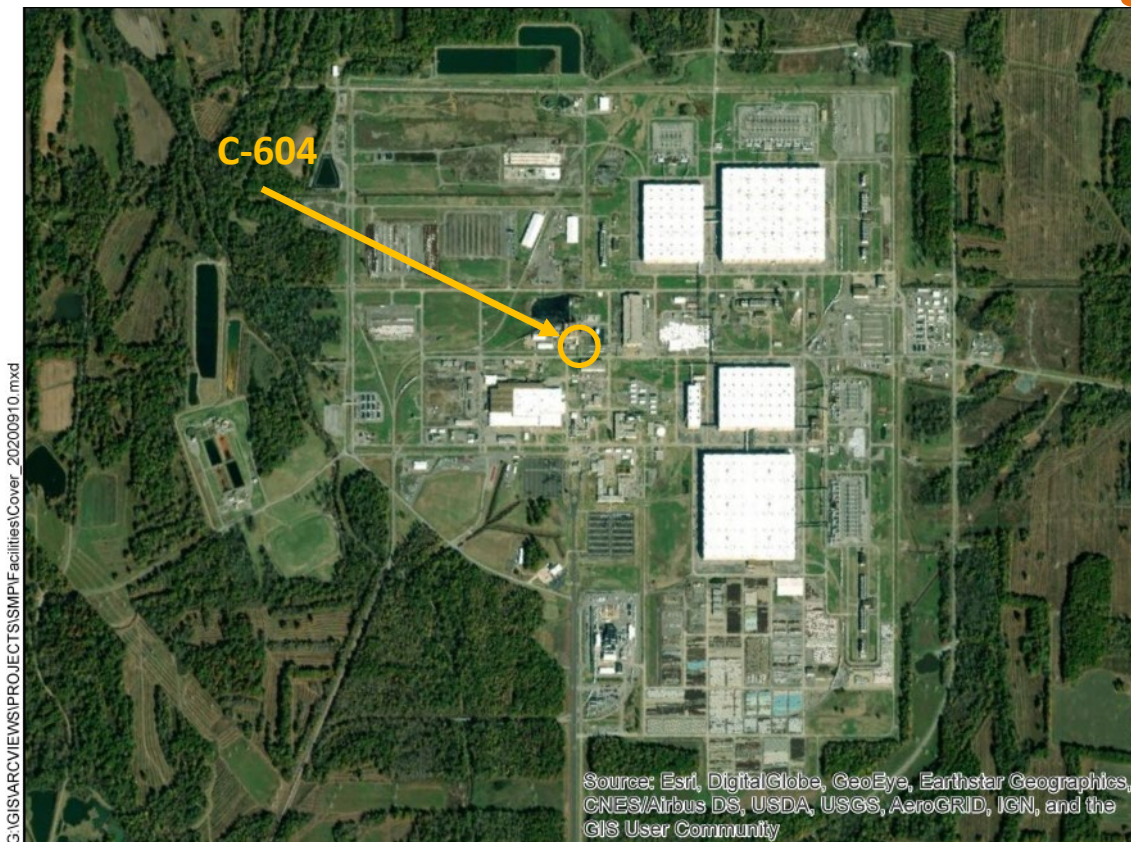


C-604 Utilities Maintenance Building



Facility Overview Briefing

July 16, 2021

Reflects consultation with EPA and Kentucky in accordance with the Site Management Plan that occurred on July 12, 2021.

Purpose

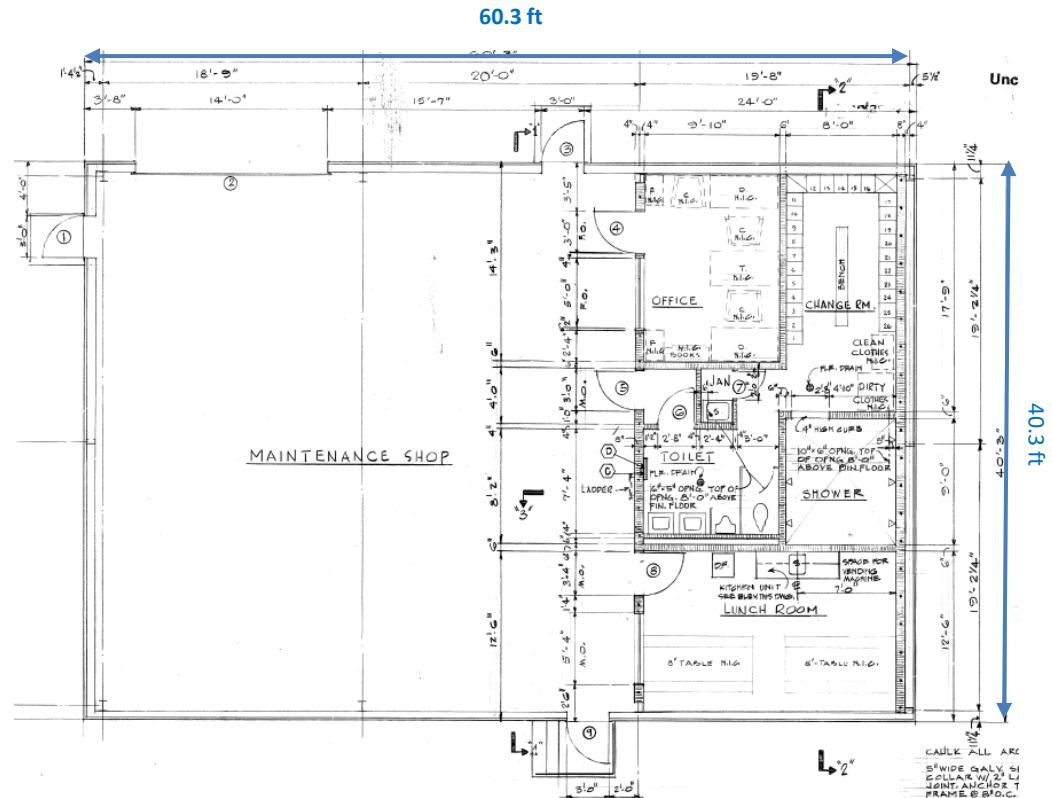
- The C-604 Utilities Maintenance Building is a candidate for future demolition and disposal, contingent upon funding priorities.
- Listed in Appendix 6 of the Site Management Plan (SMP); requires consultation with EPA and Kentucky for CERCLA screening prior to demolition.
- This presentation is intended 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) 12.



Exterior North Side
C-604 Photo: 4/2021

Construction History

- C-604 is located within the Paducah Site security fence, south of C-600.
- The facility was constructed in 1979.
- The facility is a prefabricated metal structure on a concrete slab, consisting of the following main areas:
 - ❑ Maintenance Shop
 - ❑ Office
 - ❑ Kitchen/Break Room
 - ❑ Locker Room/Shower
 - ❑ Mezzanine Area for Storage
- The facility is approximately 2,430 ft².
 - ❑ Measuring ~40 ft x ~60 ft.



Floor Plan View: Excerpt from Engineering Drawing A5E 14625A, dated 1978

Operational History

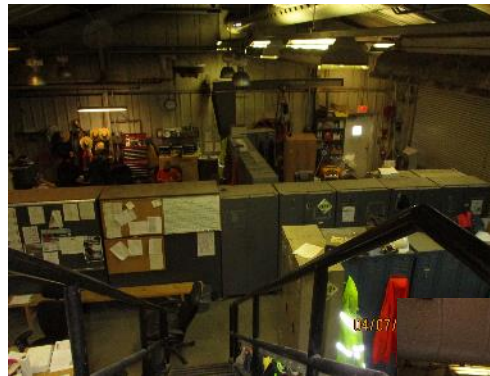
➤ C-604 was previously used by the mechanical maintenance group, supporting the following plant operations:

- ❑ Electrical Switchyards
- ❑ C-620 and C-335 Air Plants
- ❑ C-100 Series Buildings
- ❑ C-200 Series Buildings
- ❑ C-300 Series Buildings
- ❑ C-400 Series Buildings
- ❑ C-500 Series Buildings
- ❑ C-709 Building
- ❑ C-710 Building

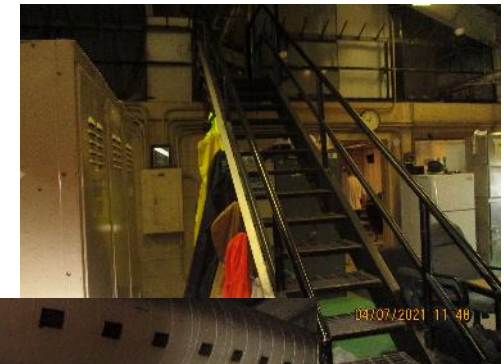
➤ USEC leased the facility in the early 1990s and continued to use C-604 until it was transitioned from USEC to DOE in 2014.



Exterior South Side View



View Overlooking Maintenance Shop Area.



Stairs to Upper Mezzanine Level



Upper Mezzanine Storage Area

C-604 Photos: 4/2021

Current Status

- C-604 currently houses utilities operations personnel which provide maintenance support for plant production and distribution of the following:
 - Steam
 - Air
 - Chilled Water
 - Sewage Treatment and Collection
 - Power Distribution

- Walkdown inspection conducted in April of 2021 and employee interviews confirmed no unusual conditions.
 - No floor sumps/drains.
 - Not used for radiological storage nor does the facility contain any radiological postings; however, a few isolated incidents of contaminated hand tools were discovered back in the 1990s that were properly bagged and removed.
 - No generator staging areas (GSAs) or satellite accumulation areas (SAAs).
 - Chemical storage cabinets are present with small quantities of chemicals that are stored in accordance with regulatory requirements and site procedures.
 - No records or evidence of spills or leaks.

Exterior East Side

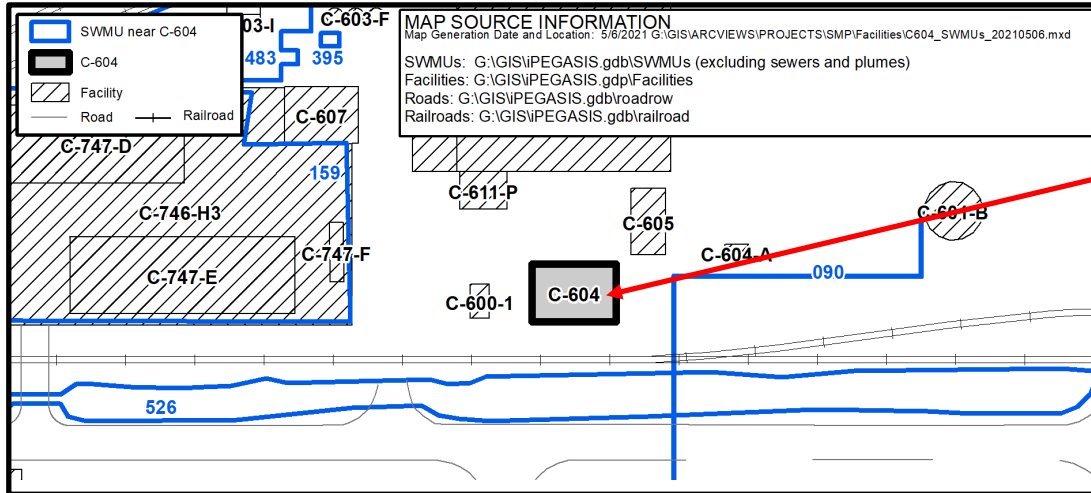


Interior Operators Work Station



Interior Breakroom

Environmental Impacts (Solid Waste Management Units)



- The C-604 facility is not designated as a SWMU/AOC.

SWMU No.	Facility Name	Current Status	NFA Approval By
090	C-720 Petroleum Naphtha Pipe	NFA	KDWM 1/14/2015
159	C-746-H3 Storage Pad (slab and underlying soils)	Soils and Slabs OU	
395	G-600-01	NFA	KDWM 3/8/2007
483	Nitrogen Generating Facilities (slab and underlying soils)	Soils and Slabs OU	
526	Internal Plant Drainage Ditches (includes KPDES 016)	SWOU Remedial Action	

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.

❑ Past chemical storage in the facility has included the following:

- ✓ Small containers properly stored in chemical cabinets, including items such as wasp spray, De-Icer, quarts of lubricant oil, cleaners, sealants, etc.
- ✓ Bulk container storage (250-gal totes, 55-gal plastic drums) of boiler cleaner and treatment chemicals.

Note: All chemicals were kept in secure containerized storage and no known spills or leaks occurred that would pose environmental release threat.

❑ 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.

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-604 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

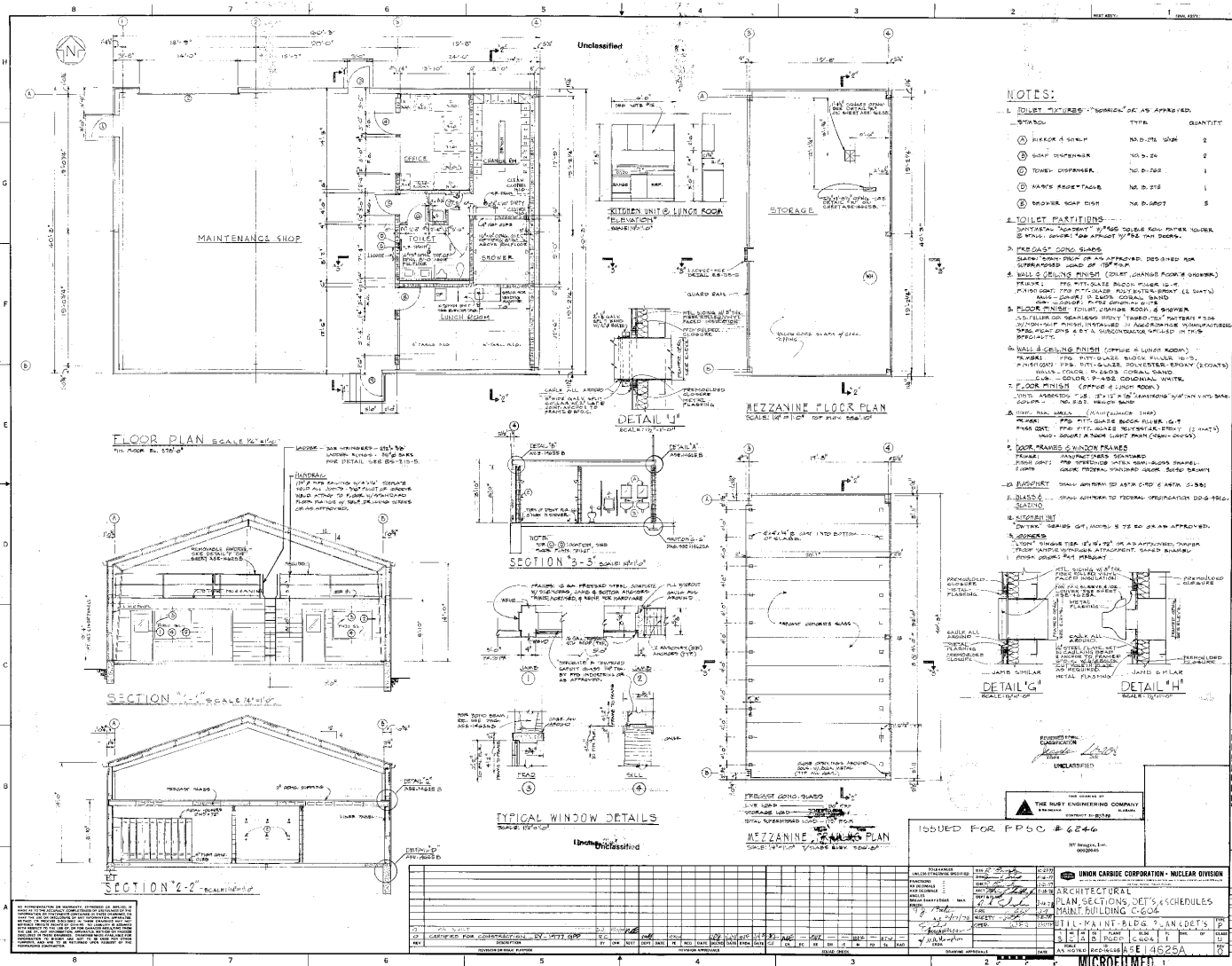
- As part of the demolition of the aboveground structure, the appropriate best management practices (BMPs) will be evaluated and implemented (as needed) to prevent/minimize the pooling and/or migration of storm water that may come into contact with any potential contamination that may exist on the pad. 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.

- Removal of the C-604 facility will be documented in the appropriate annual SMP revision.

- The future evaluation conducted for GA 12 will further evaluate the threat of release associated with the concrete pad and soils.

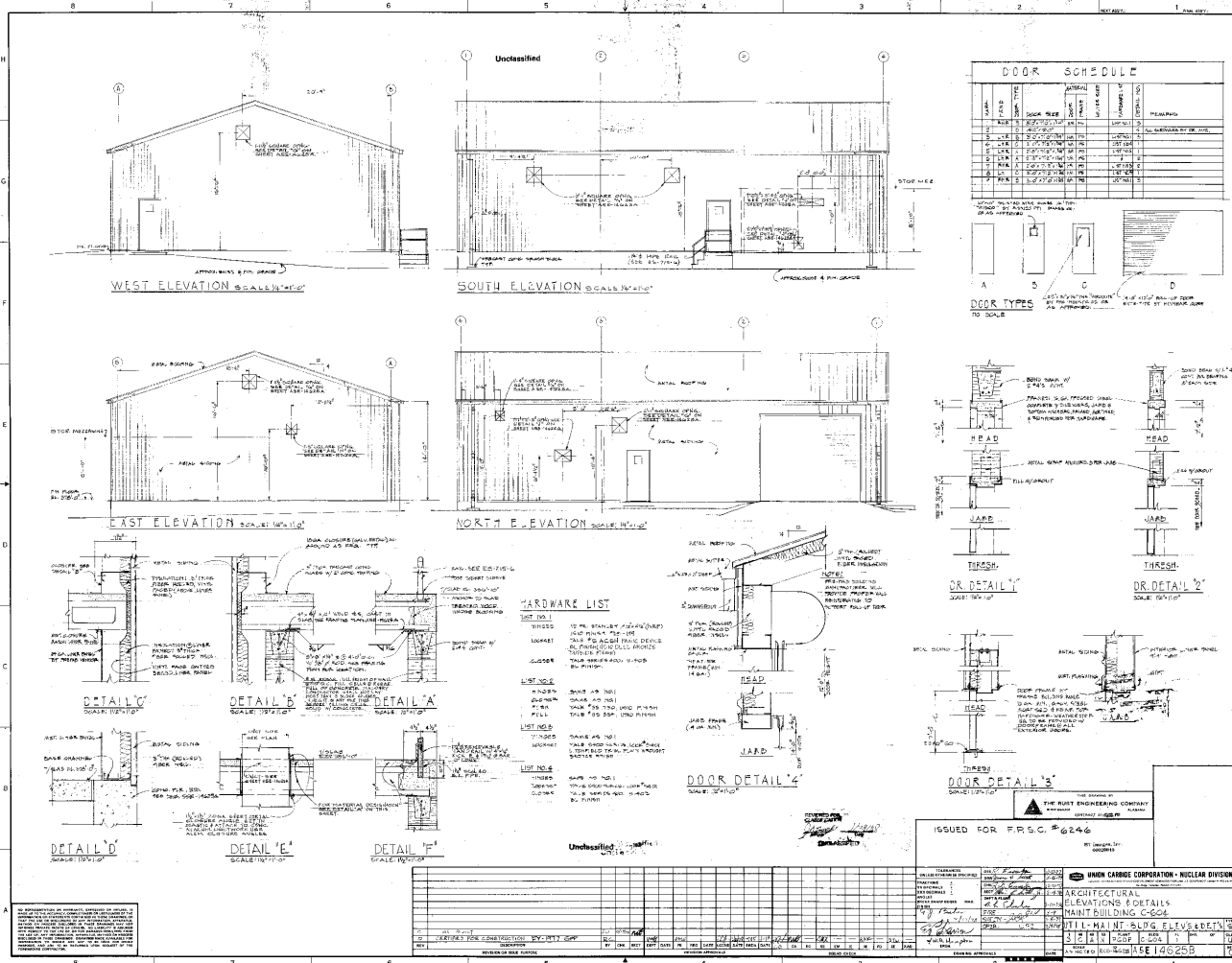
BACKUP INFORMATION

C-604 Engineering Drawings



Engineering Drawing A5E 14625A

C-604 Engineering Drawings



Engineering Drawing A5E 14625B

C-604 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
- Employee Communication:
 - Plant Utilities Personnel (45 years plant expertise)
 - Waste Operations Personnel (20 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
 - Lee Wan & Associates, Inc., Asbestos Survey Report, Volume 7, October 1990