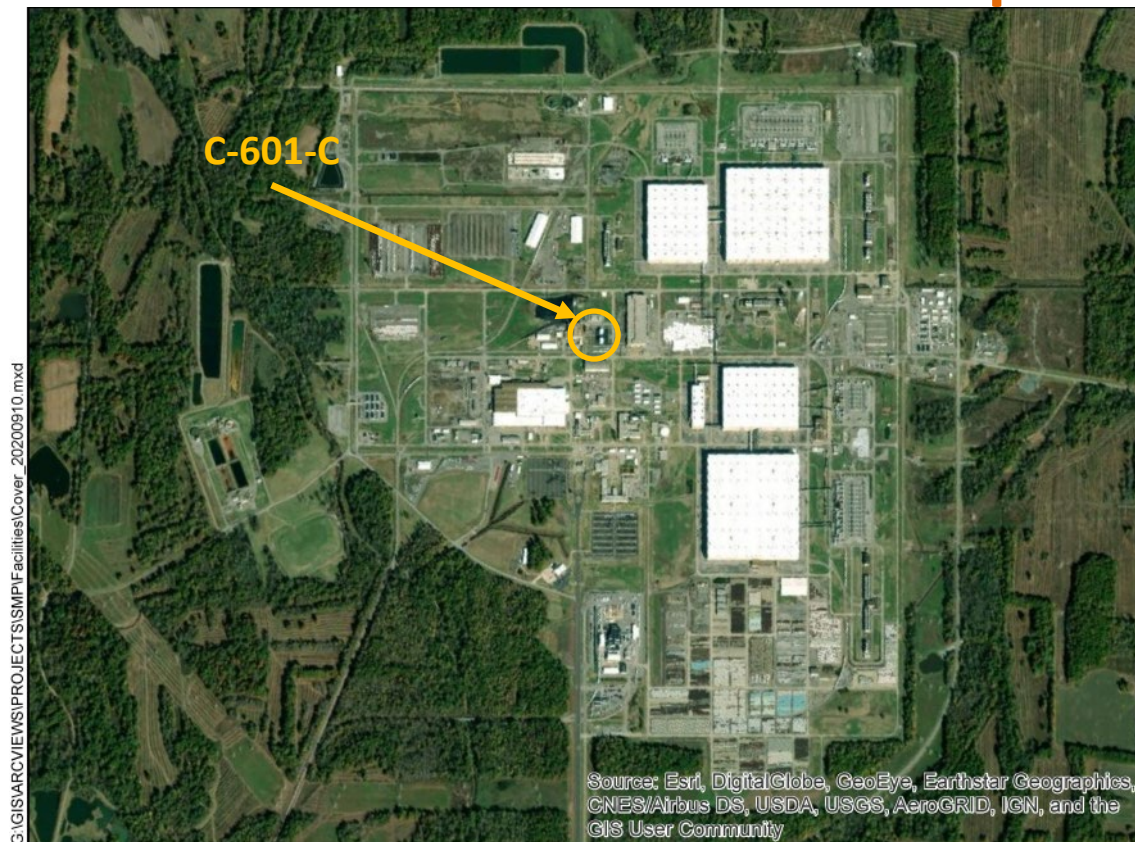


C-601-C Steam Plant Fuel Oil Pump House



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, and includes incorporation of comments from those discussions.

Purpose

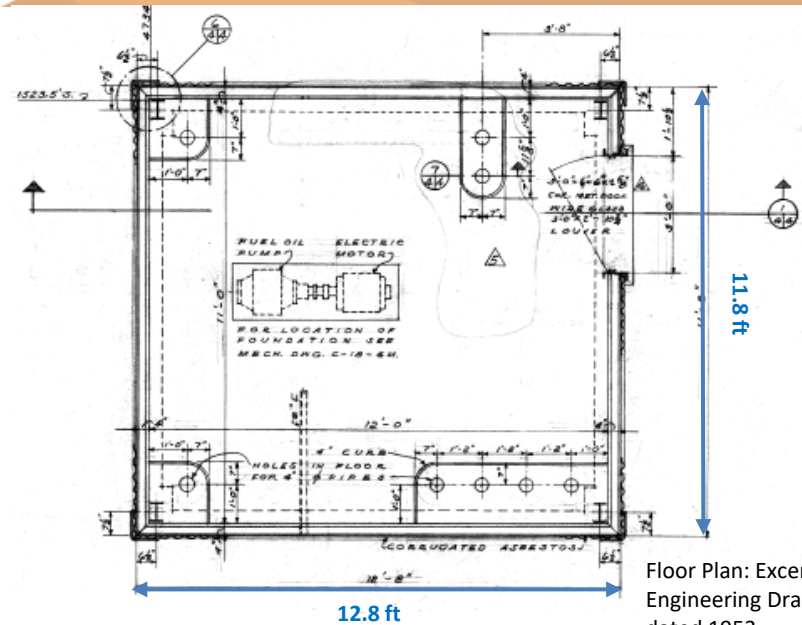
- The C-601-C Steam Plant Fuel Oil Pump House is a candidate for future demolition and disposal, contingent upon funding priorities.
- Listed in Appendix 6 of the Site Management Plan (SMP); requires consultation with EPA and Kentucky for CERCLA screening prior to demolition.
- This presentation is intended 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.



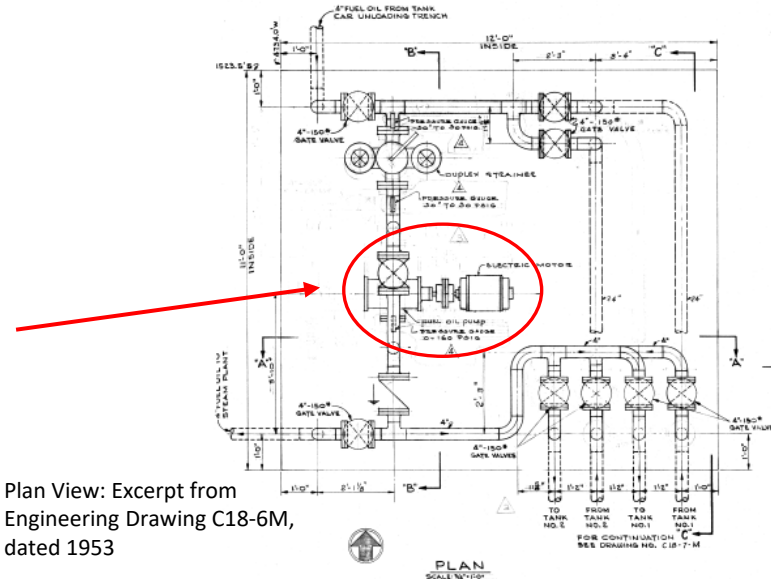
Exterior East and North Sides
C-601-C Photo: 3/2021

Construction History

- C-601-C is located within the Paducah Site security fence, just east of C-600 Steam Plant.
- The facility was constructed in 1953.
- The facility is constructed of structural steel with corrugated asbestos roofing and corrugated asbestos siding on a concrete slab.
- The facility is approximately 151 ft².
 - ❑ Measuring ~12.8 ft x ~11.8 ft.
- Design/construction originally included an electric motor and a fuel pump; however, the fuel pump was upgraded in 2016 to a dual pump system.



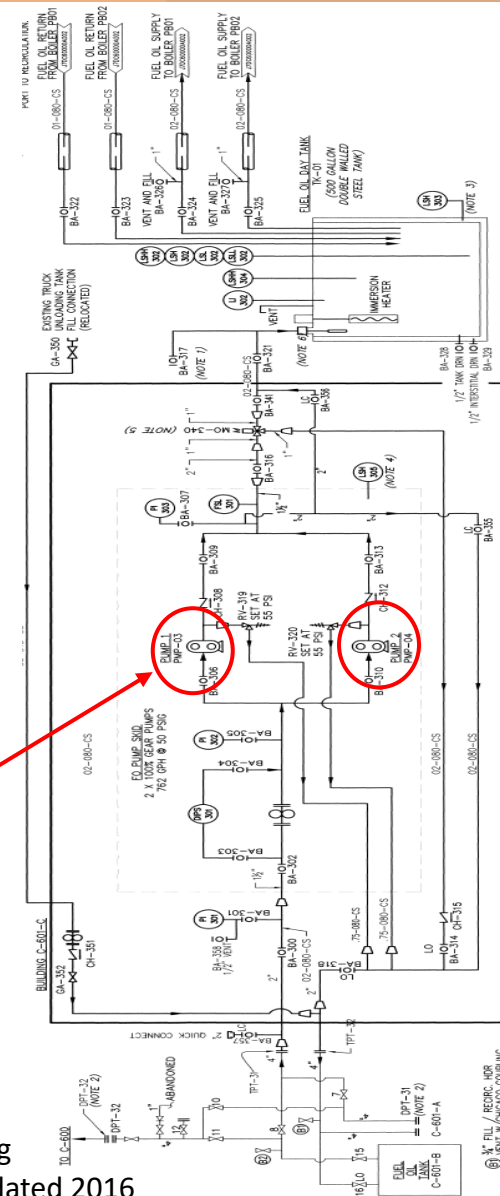
Floor Plan: Excerpt from Engineering Drawing C18-4A, dated 1953



Plan View: Excerpt from Engineering Drawing C18-6M, dated 1953

Operational History

- C-601-C has been used since its initial construction to transfer product fuel oil via a motorized pump(s) as follows:
 - ❑ Unloading/transferring fuel from delivery tanker trucks and railcars to the C-601-A, -B, and -D product storage tanks for storage prior to use in the C-600 Steam Plant.
 - ❑ Used to transfer the product fuel oil between the various storage tanks to keep each purchased batch separated when new deliveries were scheduled.
- USEC leased the facility in the early 1990s and continued to use C-601-C until it was transitioned from USEC to DOE in 2014.
- In 2016, the original pump was replaced with a new dual pump system when the new steam boiler packages were installed at the C-600 Steam Plant.
 - ❑ The No. 1 and 2 steam boilers can run on either fuel oil or natural gas.



Engineering Drawing
CJ7DC60000A004, dated 2016

Current Status

- C-601-C is currently operational and continues to serve as a transfer pump station for product fuel oil for the C-600 Steam Plant.
- Walkdown inspection conducted in March of 2021 and employee interviews confirmed no unusual conditions, except minor oil staining as noted below.
 - ❑ No floor sumps/drains; however, the pumps have some limited amounts of underground piping for oil transfer.
 - ❑ Not used for radiological storage nor does the facility contain any radiological postings.
 - ❑ No generator staging areas (GSAs) or satellite accumulation areas (SAAs).
 - ❑ Evidence of possible oil staining on floor.

Exterior Views,
West and
South Sides



Interior Oil
Transfer Pump

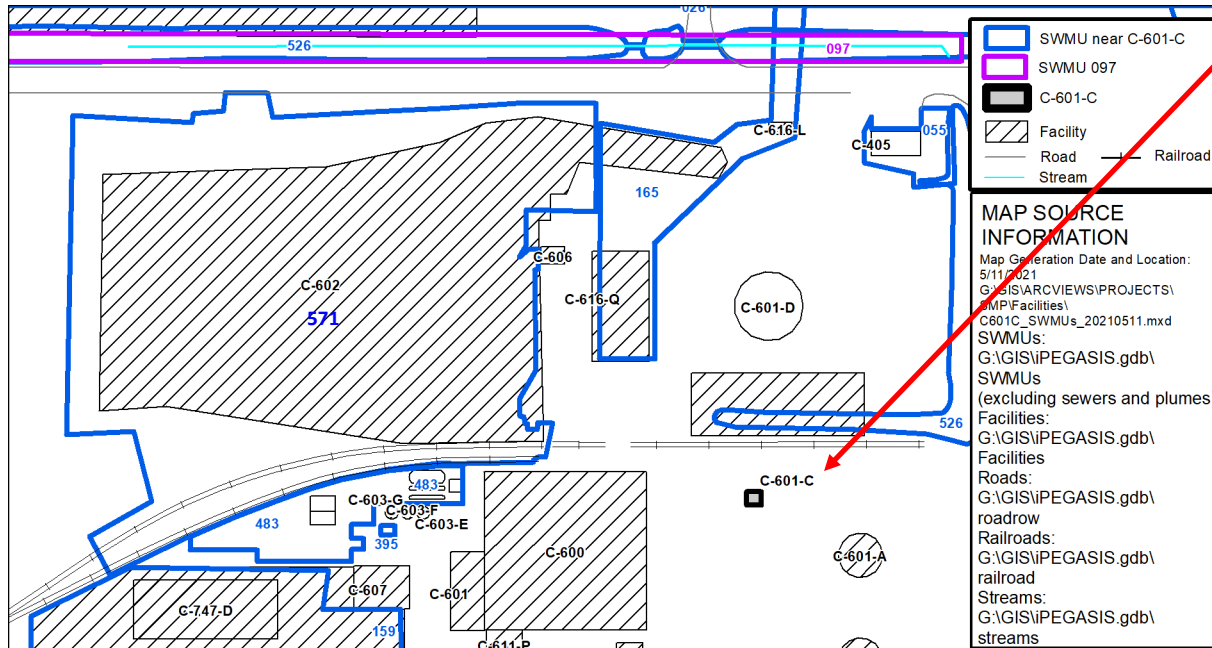


Interior Fuel Oil
Strainer



Interior Control Panel

Environmental Impacts (Solid Waste Management Units)



- The C-601-C Facility is not designated as a SWMU/AOC.
- A diesel spill (SWMU 97) was initially pumped through piping in C-601-C that was accidentally discharged to a plant ditch through an open unconnected valve where rail tanks are usually connected. SWMU 97 (C-601 Diesel Spill), will be evaluated under the Surface Water OU.

SWMU No.	Facility Name	Current Status	NFA Approval By
055	C-405 Incinerator building (slab and underlying soils)	Soils and Slabs OU	
097	C-601 Diesel Spill	SWOU Removal Action	
159	C-746-H3 Storage Pad (slab and underlying soils)	Soils and Slabs OU	
165	C-616-L Pipeline & Vault Soil Contamination	Soils OU Remedial	
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	
571	C-602 Coal Storage Yard	Soils and Slabs OU	

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-601-C has served as a product fuel oil transfer facility since its construction in 1953.
 - ❑ No history or records of any spills that would pose an environmental release threat.
 - ❑ Building materials used for construction include asbestos-containing siding and roofing and could contain lead-based paints and other asbestos-containing material, both of which can be effectively verified during a predemolition inspection and properly managed using standard demolition and waste management.

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-601-C 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

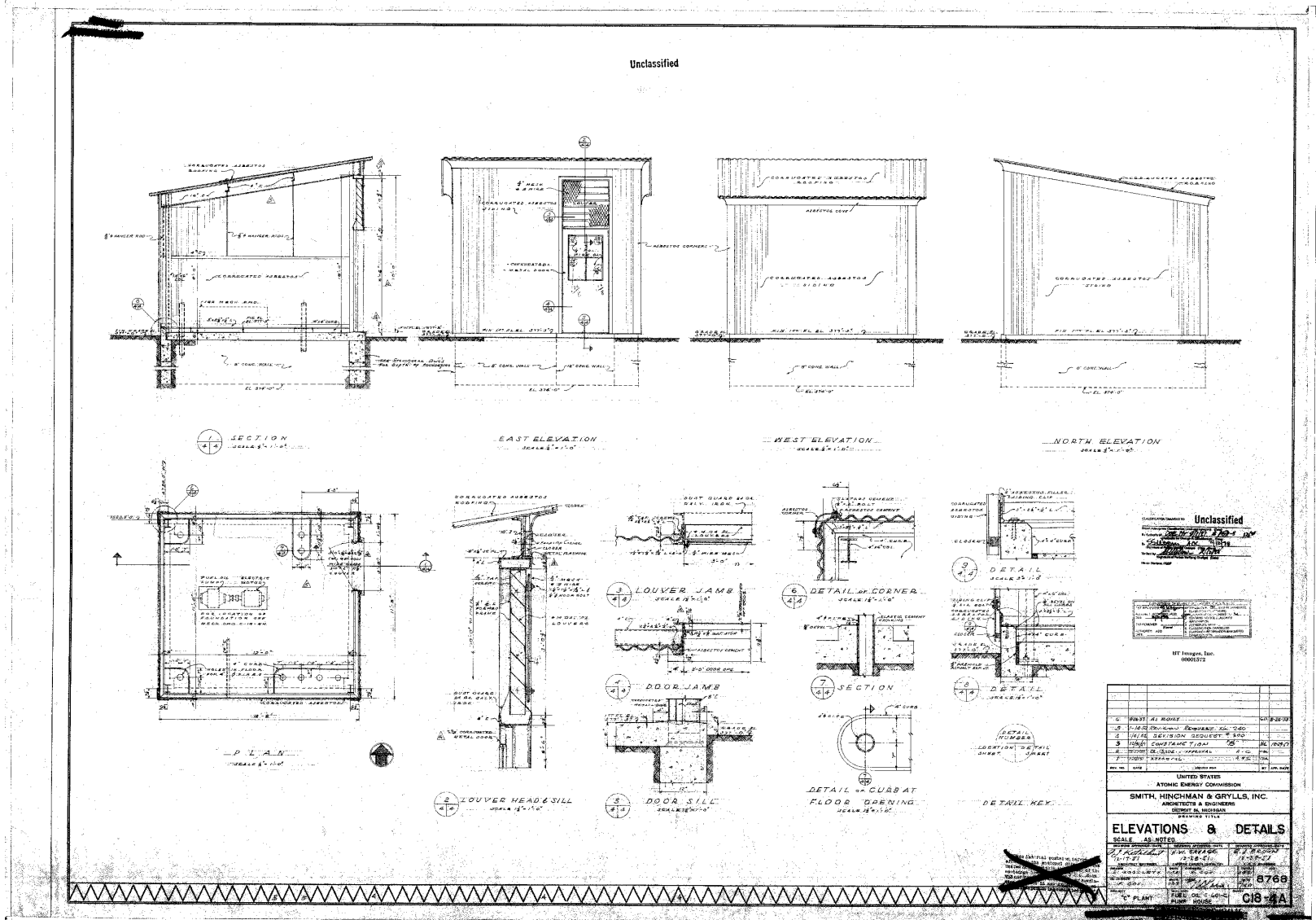
- As part of the demolition of the aboveground structure, the appropriate best management practices (BMPs) will be evaluated and implemented (as needed) to prevent/minimize the pooling and/or migration of storm water that may come into contact with any potential contamination that may exist on the pad. 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-601-C 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.

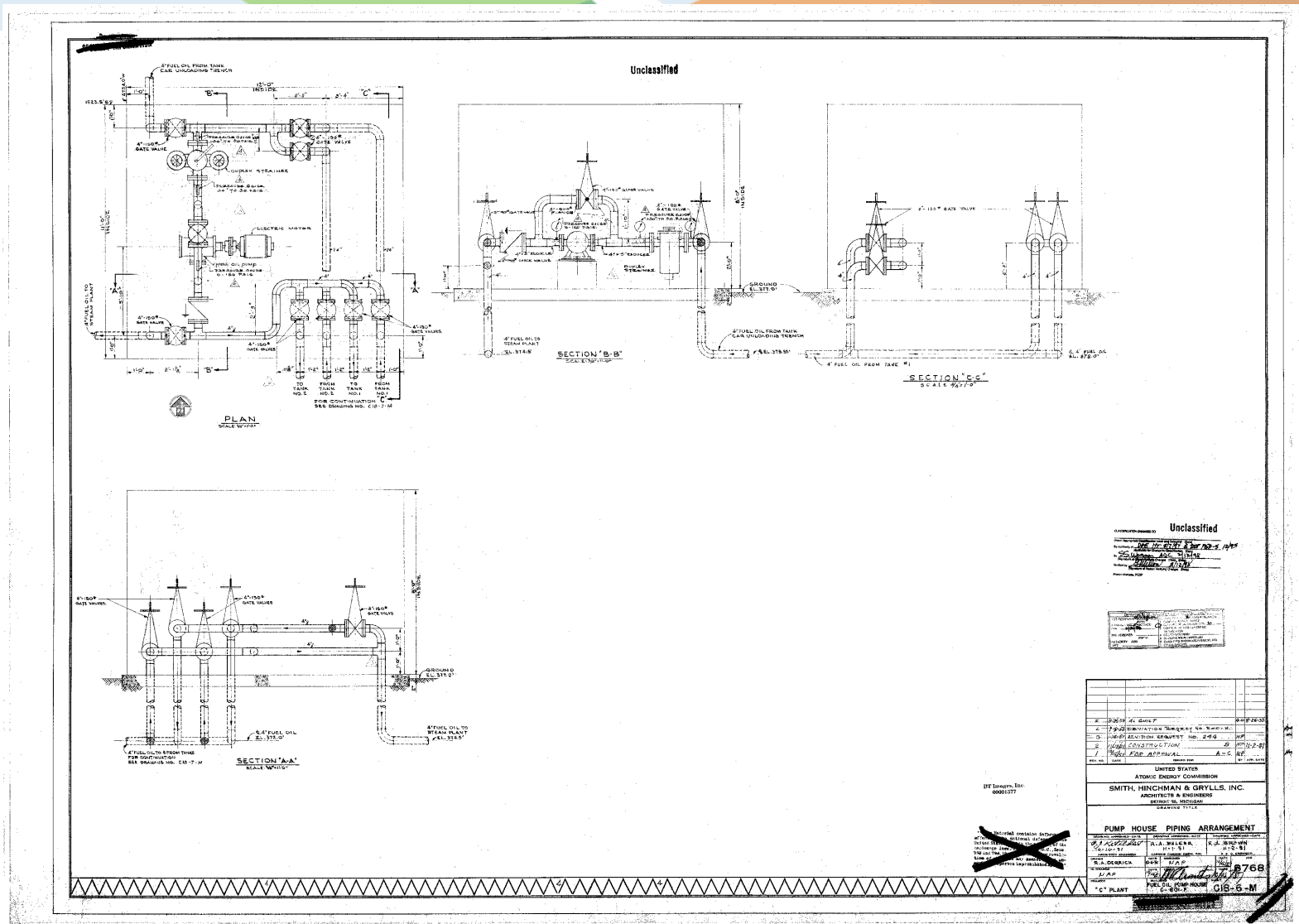
BACKUP INFORMATION

C-601-C Engineering Drawings

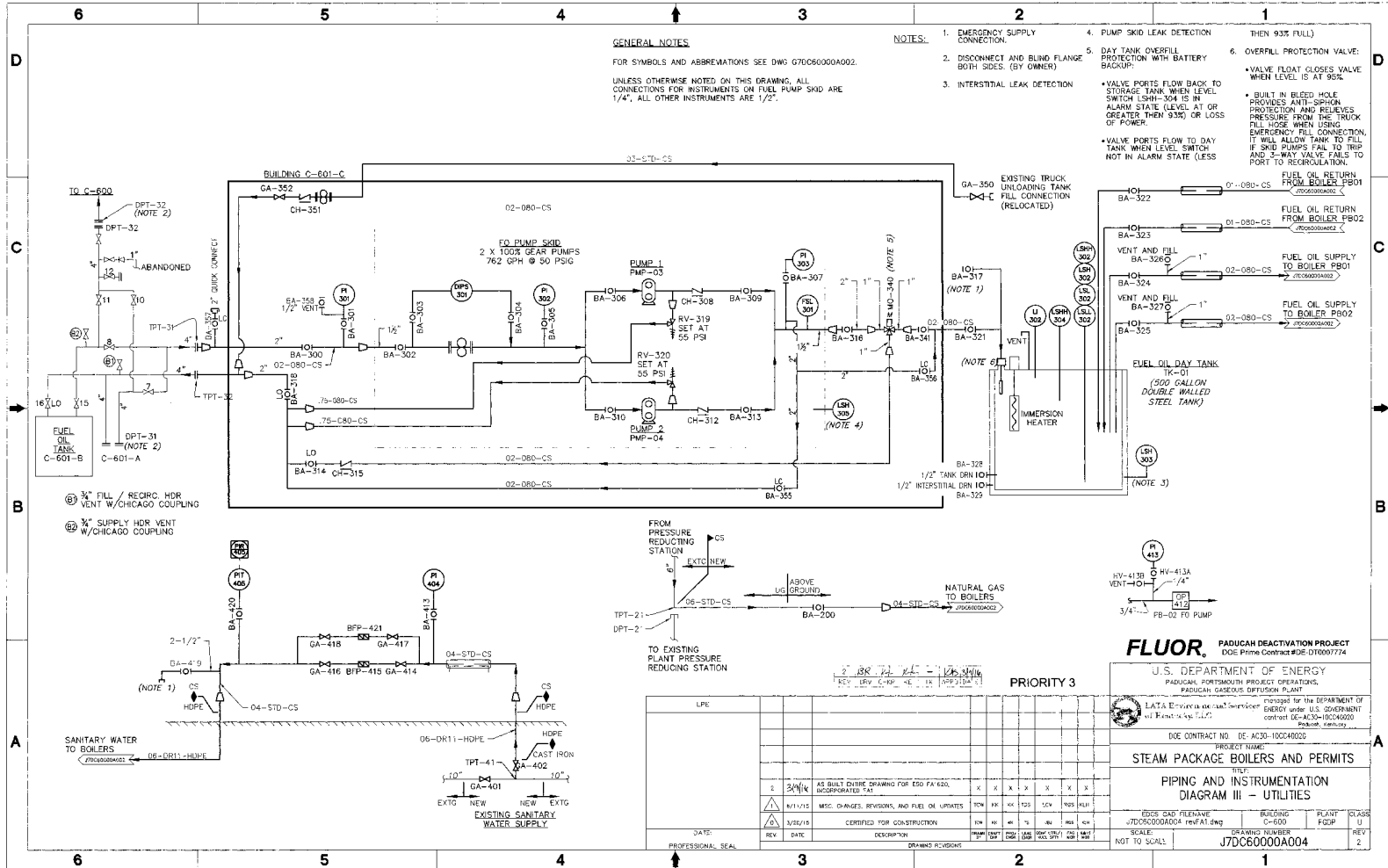


Engineering Drawing C18-4A

C-601-C Engineering Drawings



C-601-C Engineering Drawings



Engineering Drawing CJ7DC6000A004

C-601-C 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