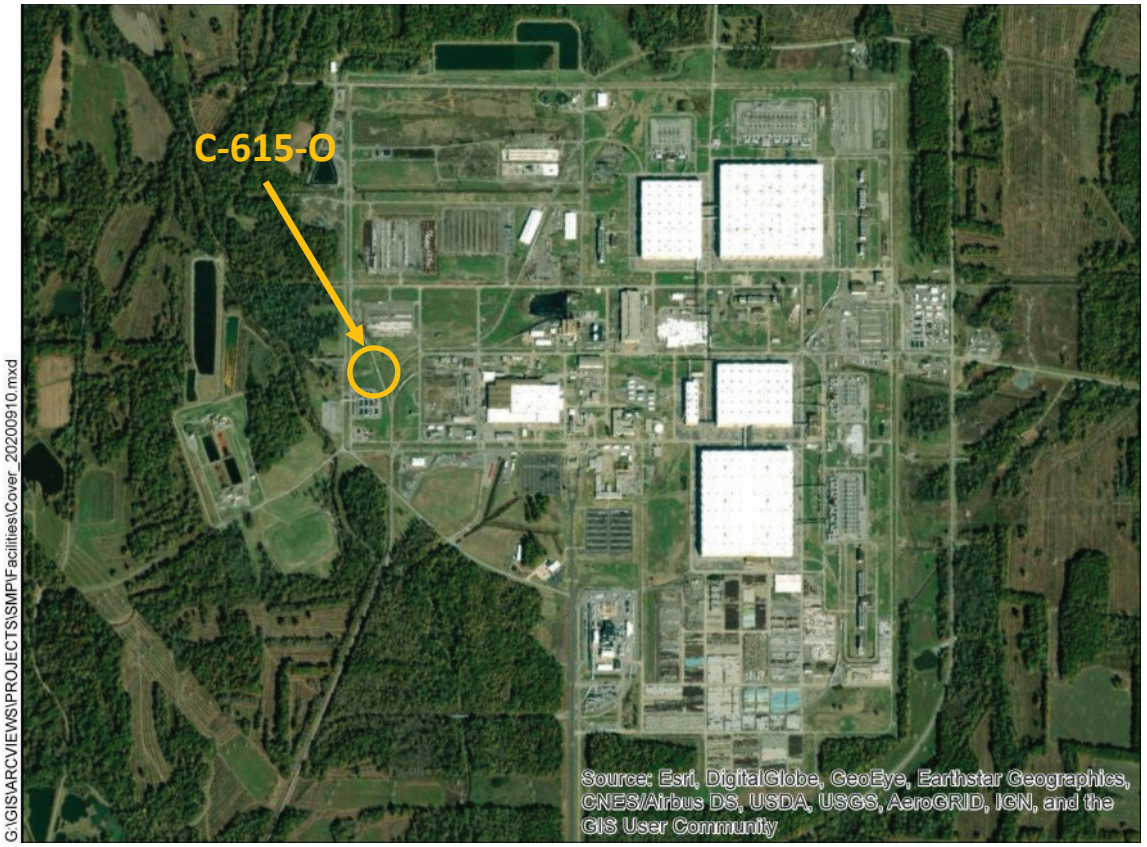
C-615-O Oil Control Building



Facility Overview Briefing

March 24, 2021

Reflects consultation with EPA and Kentucky in accordance with the Site Management Plan that occurred on March 17, 2021, and includes incorporation of comments from those discussions

Purpose

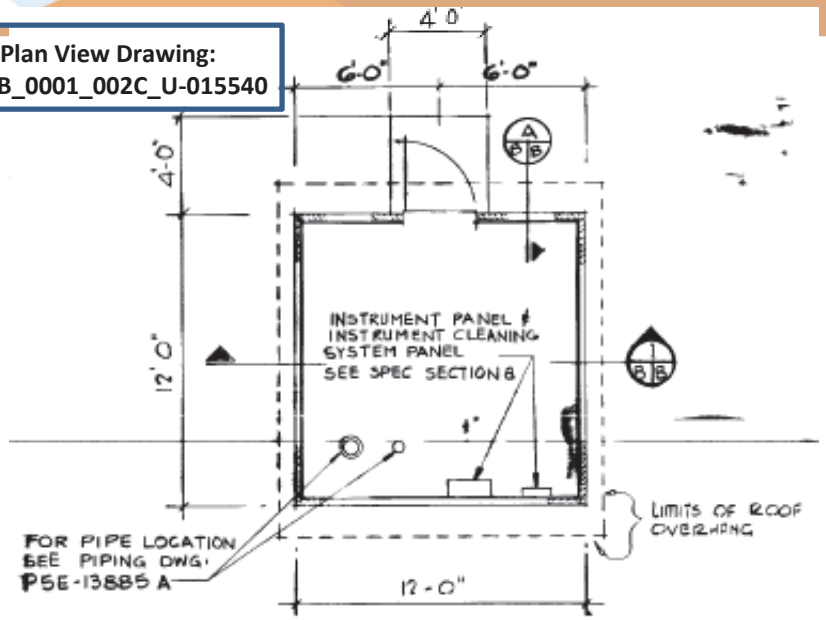
- The C-615-O Oil Control Building is a candidate for future demolition and disposal, contingent upon funding priorities.
- Listed in Appendix 6 of the Site Management Plan (SMP); requires consultation with EPA and Kentucky for CERCLA screening prior to demolition.
- This presentation is intended to 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) 11.

C-615-O Photo: 7/2020

Construction History

- C-615-O is located within the Paducah Site security fence, in the southwest corner of the plant just north of the C-615 Sewage Disposal Plant.
- Construction was completed in 1983.
- Construction consists of a one-story prefabricated metal building constructed on a concrete pad.
- Connected to an underground concrete pit/sump on the north side that is part of the storm water sewer.
  - The pit/sump is not part of this evaluation
- The facility is approximately 144 ft^2 .
  - Measuring ~12 ft x ~12 ft.

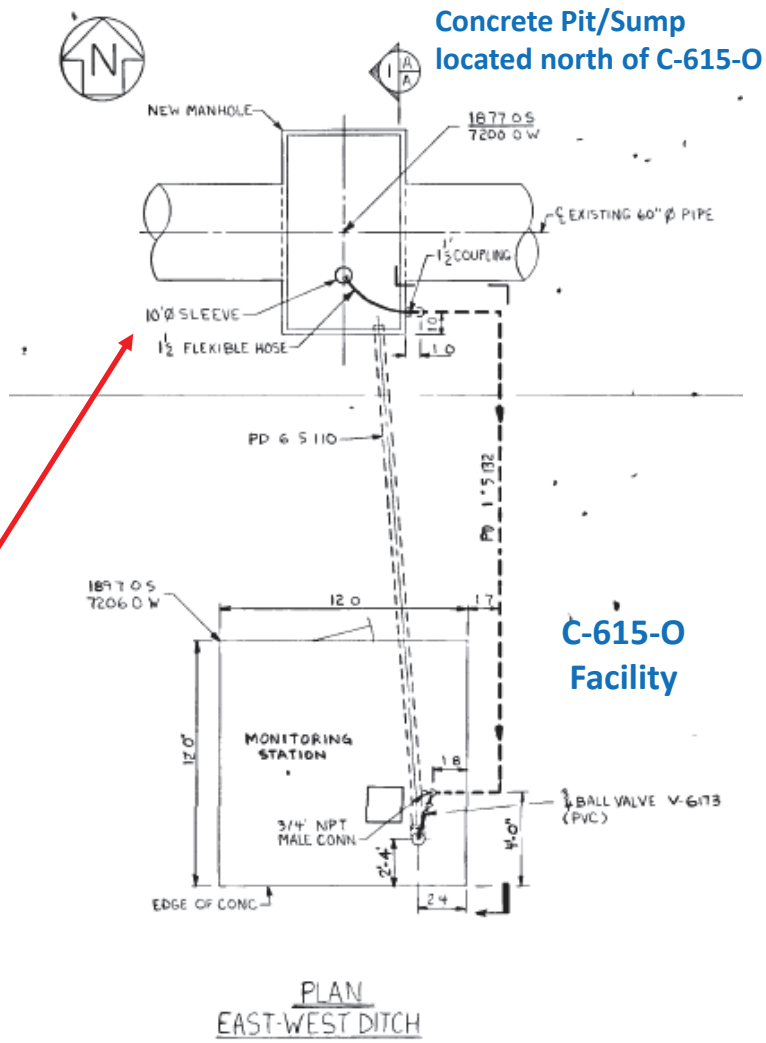
Engineering Plan View Drawing:
A5E-13885-B_0001_002C_U-015540



C-615-O Photo: 7/2020

Operational History

- Multiple plant operations (e.g., C-600 Steam Plant, C-400 Cleaning Building) historically discharged through Kentucky Pollutant Discharge Elimination System (KPDES) Outfall 008 via the East-West storm sewer.
- C-615-O was specifically constructed to support automated monitoring of the East-West portion of the plant's storm water sewer system that discharges to KPDES Outfall 008.
- Storm water flow in the sewer piping passed directly though the pit/sump located north of C-615-O.
- Samples of storm water were automatically pumped from the pit/sump to C-615-O for testing via a connected line and submersible pump.



Engineering Drawing: P5E 13885 A_0001_002C_U-015558

Operational History

- C-615-O contains an instrumentation cabinet that measured the pH, conductivity, and flow of the storm water samples.
- After testing, the water sample was automatically returned to the pit/sump for KPDES discharge.
- USEC leased the facility in the early 1990s; however, employee interviews indicate USEC never operated the facility for its designed purpose of storm water monitoring.
- The environmental sampling group for USEC used the facility to store sampling equipment and supplies until USEC ceased operations in 2014.
- The facility was transitioned from USEC to DOE in 2014.
- After the facility transitioned to DOE in 2014, the facility has remained inactive and continues to store the environmental sampling supplies that were present during the USEC lease.

Photo of a Stored Gas Powered Sampling Auger: 7/2020.

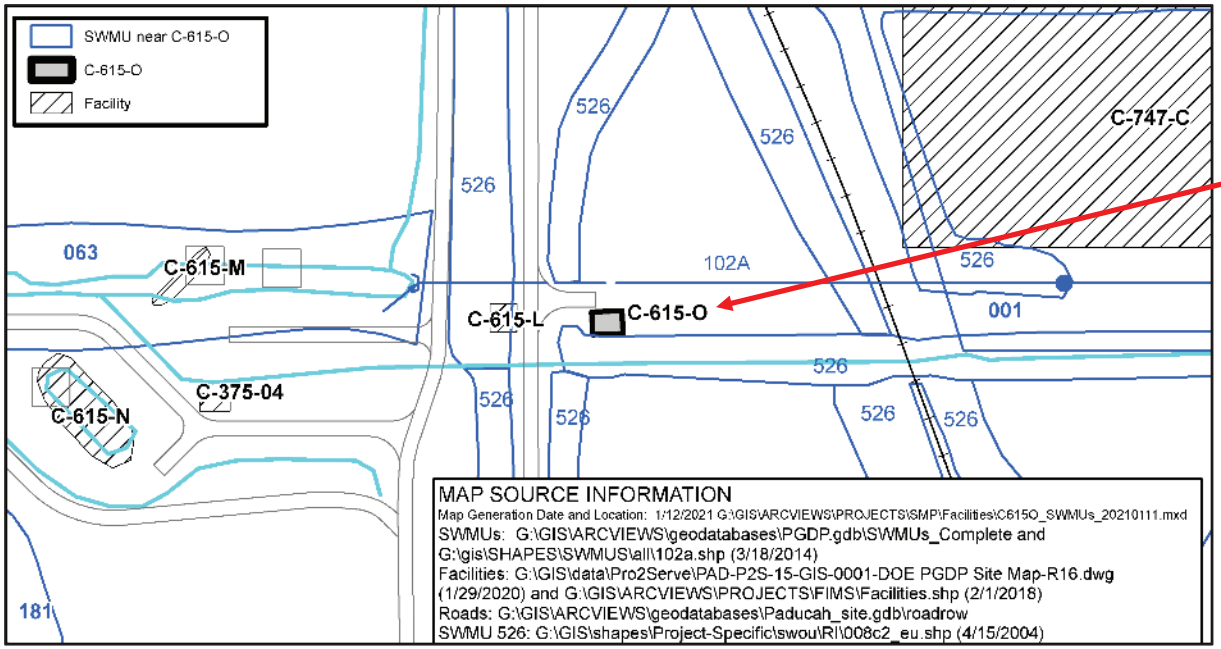
Current Status

- C-615-O is no longer operated as an automated monitoring station but still contains unused environmental monitoring supplies.

- Walkdown inspection conducted in July 2020 and employee interviews confirmed the following conditions.
  - ❑ Storage of unused, empty sampling supplies (e.g., bottles).
  - ❑ Storage of unused, empty 5-gal metal containers.
  - ❑ Storage of gasoline powered sampling auger.
  - ❑ No sumps; no floor drains.
  - ❑ No evidence of spills or staining on the floor or any other unusual conditions.

Unused sampling supplies stored in C-615-O: 7/2020

Environmental Impacts
(Solid Waste Management Units)



- C-615-O is not designated as a SWMU/AOC.

SWMU No.	Facility Name	Current Status
001	C-747-C Oil Land Farm	GWOU – Southwest Plume Sources and Soils Remedial
063	C-375-W7 Oil Skimmer Ditch (KPDES 008 and KPDES 004)	SWOU Removal Action
102-A	Plant Storm Sewer – between the south side of the C-400 Building and Outfall 008	NFA Approval by KDWM/EPA via Southwest Plume ROD on 3/16/2012; KDWM on 1/14/2015
181	Outdoor Firing Range (PGDP)	Soils Remedial
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.
  - C-615-O has only been used to support the testing of storm water and storage of environmental sampling supplies since its construction in the early 1980s.
  - Building materials used for construction could contain lead-based paints and asbestos 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 environmental release threat.

- The pit/sump located north of C-615-O is not part of this evaluation and is part of the storm sewer system identified as SWMU 102-A which has been designated no further action under the SMP by both Kentucky and EPA.

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.

- Pending completion of deactivation and availability of funding, proceeding with demolition and disposal of C-615-O (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 occurs in a safe, compliant manner, including conducting 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 implemented as necessary:
  - Radiological surveying will occur following demolition.
  - Decontamination and/or application of fixatives will be applied 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)).

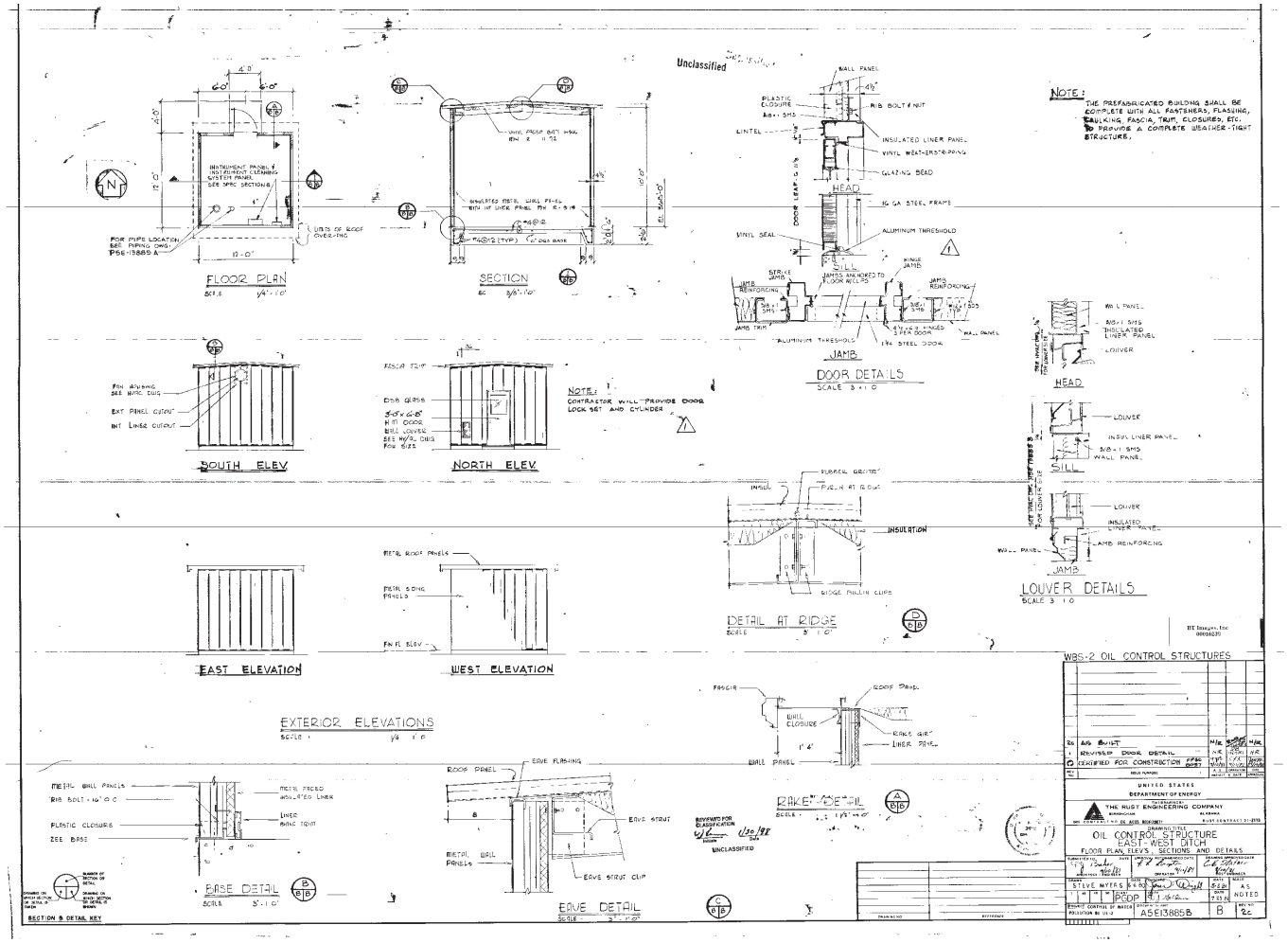
- Removal of C-615-O will be documented in the appropriate annual SMP revision.

- The future evaluation conducted for GA 11 will further evaluate the threat of release associated with the concrete pad and soils from the C-615-O facility.

C-615-O Oil Control Building

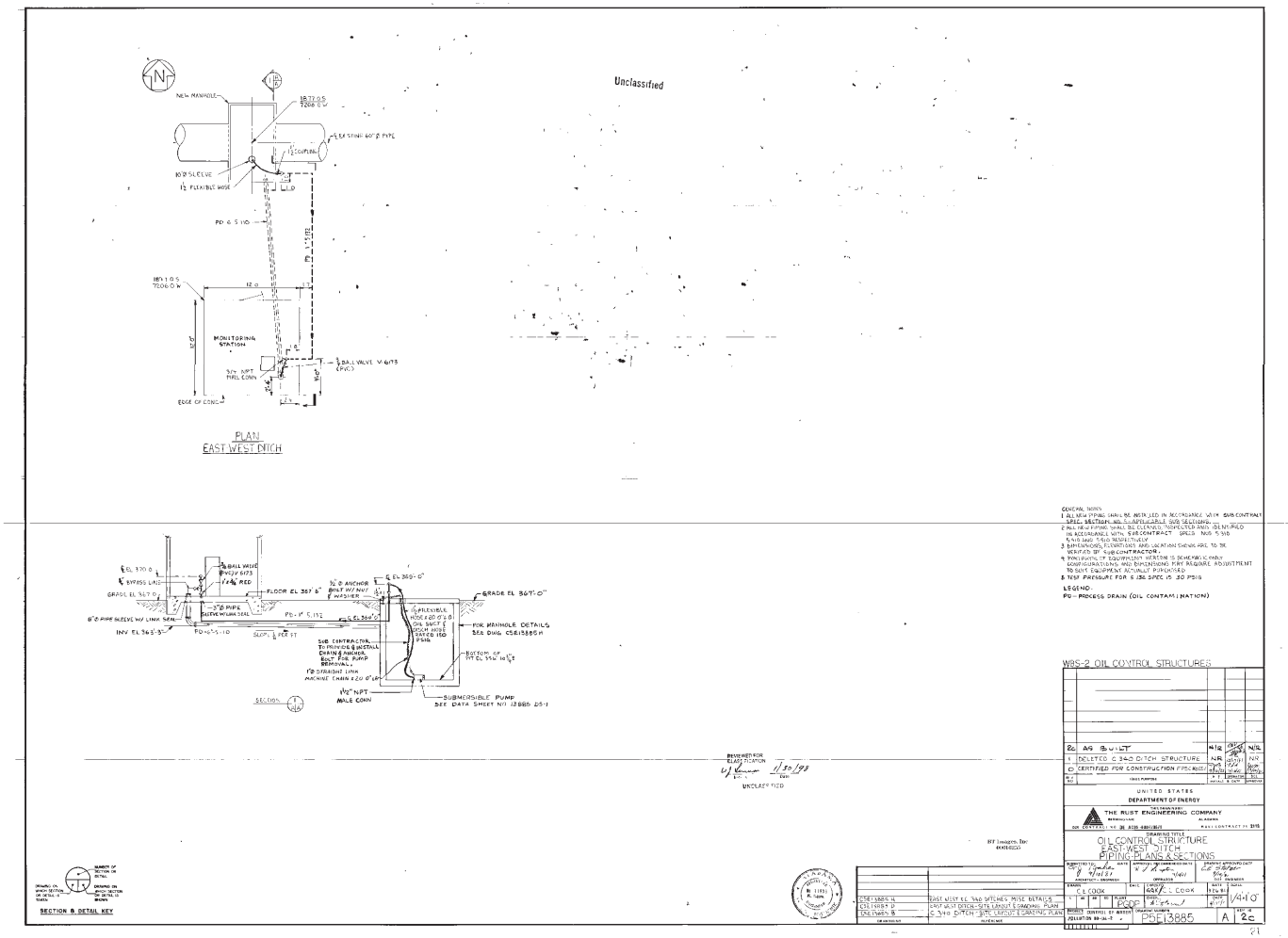
BACKUP INFORMATION

C-615-O Engineering Drawings



Engineering Plan View Drawing: A5E-13885-B_0001_002C_U-015540

C-615-O Engineering Drawings



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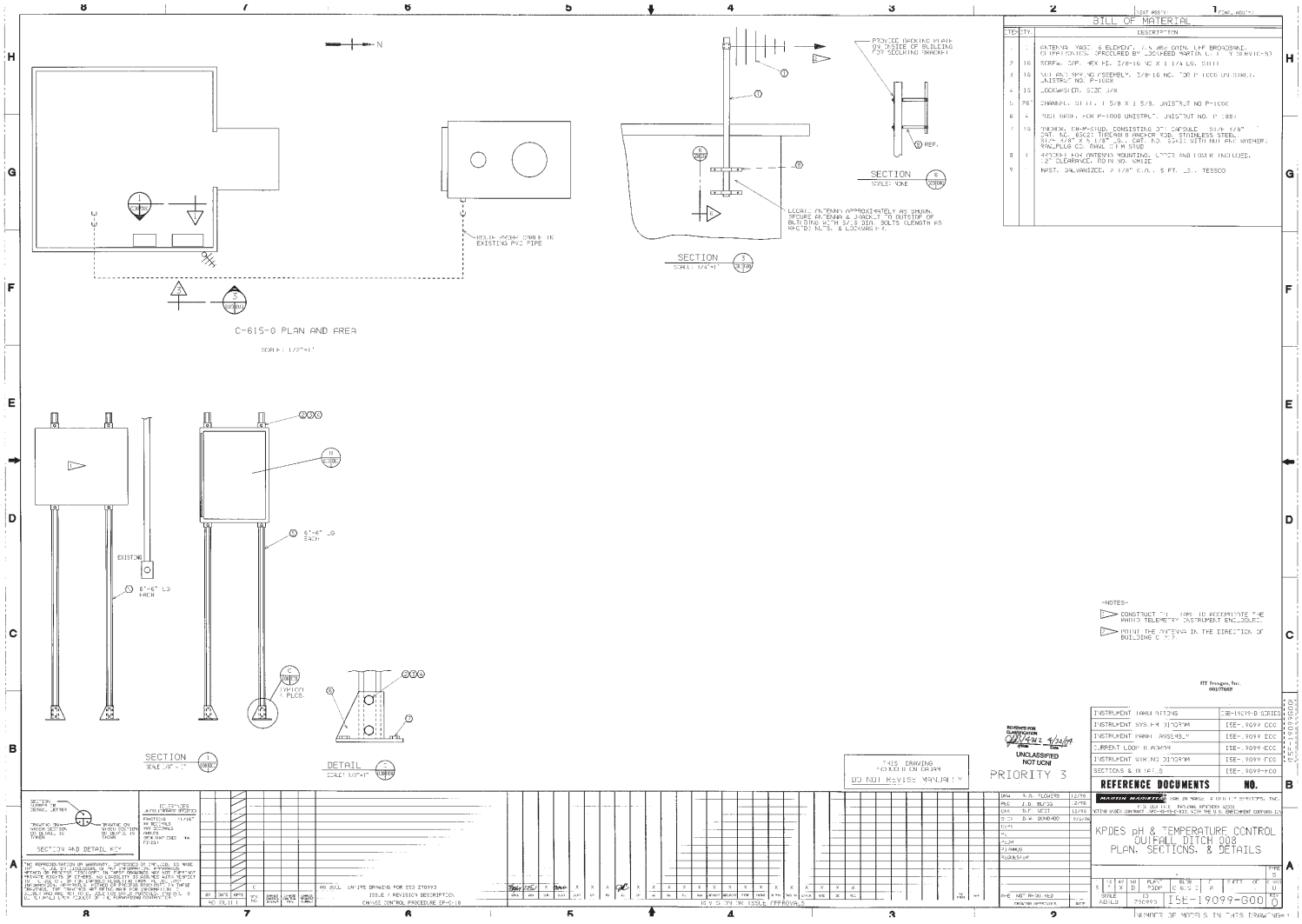
C-615-O Engineering Drawings



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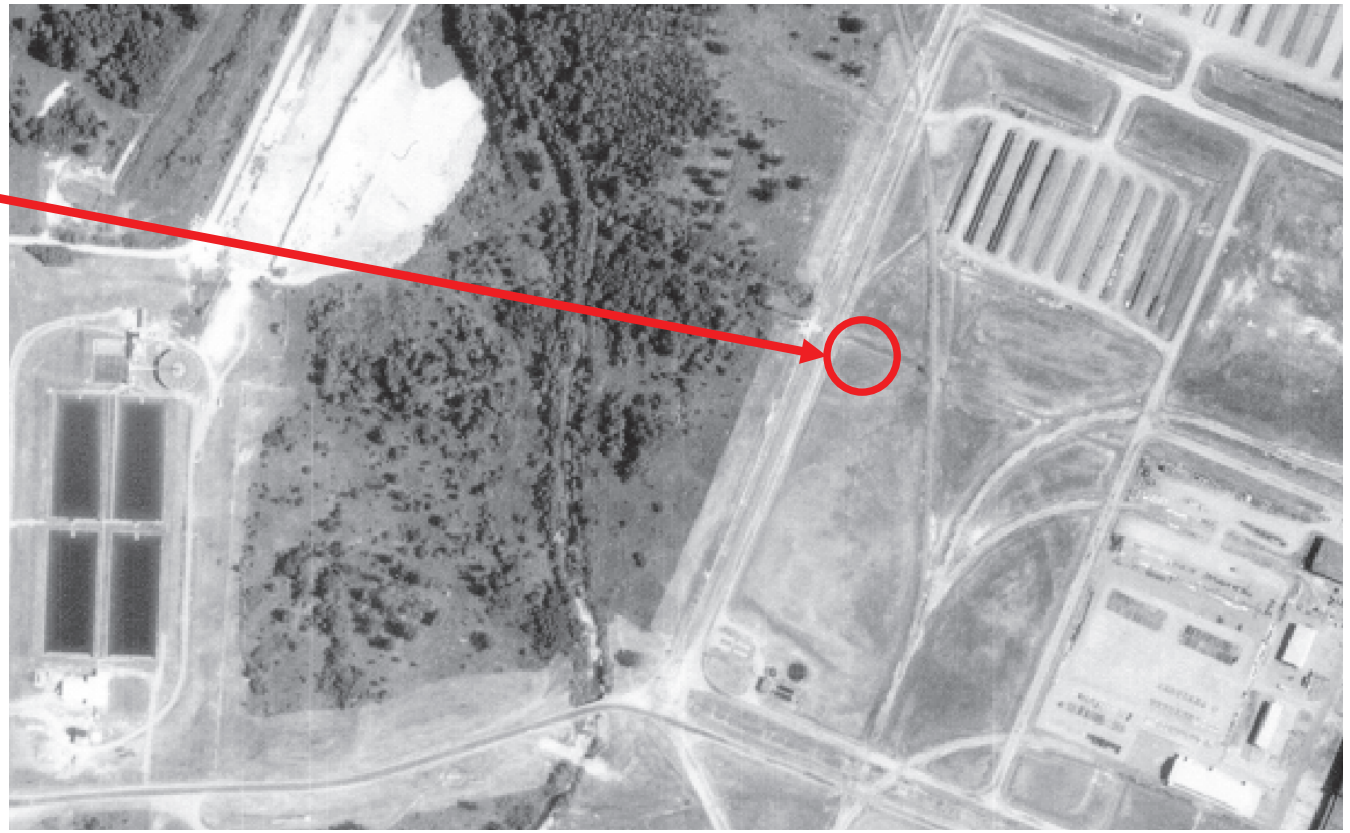
C-615-O Aerial Photograph

Portion of aerial photograph taken in July 3, 1971, depicting undeveloped location where the C-615-O Oil Control Building was later constructed in 1983.



Modified from Aerial Photograph: July 3, 1971

C-615-O 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 Interviews:
  - Environmental Compliance Subject Matter Expert (29 years plant expertise)
  - Utility Operations Subject Matter Expert (49 years plant expertise; operator/manager/supervisor)
- Documents:
  - Paducah Gaseous Diffusion Plant Sitewide Strategy Facility Background Information. FPDP-RPT-0021, May 2016
  - Phase II Site Investigation Work Plan KY/ER-3 (June 1990)
  - Sampling and Analysis Plan for a Site Evaluation at Waste Area Group 15, KY/EM-160 (July 1996)
  - Solid Waste Management Unit Assessment Reports – Solid Waste Management Units 102-A, 102-B, 211-A and 211-B, PPPO-02-2590549-15 (November 2014)