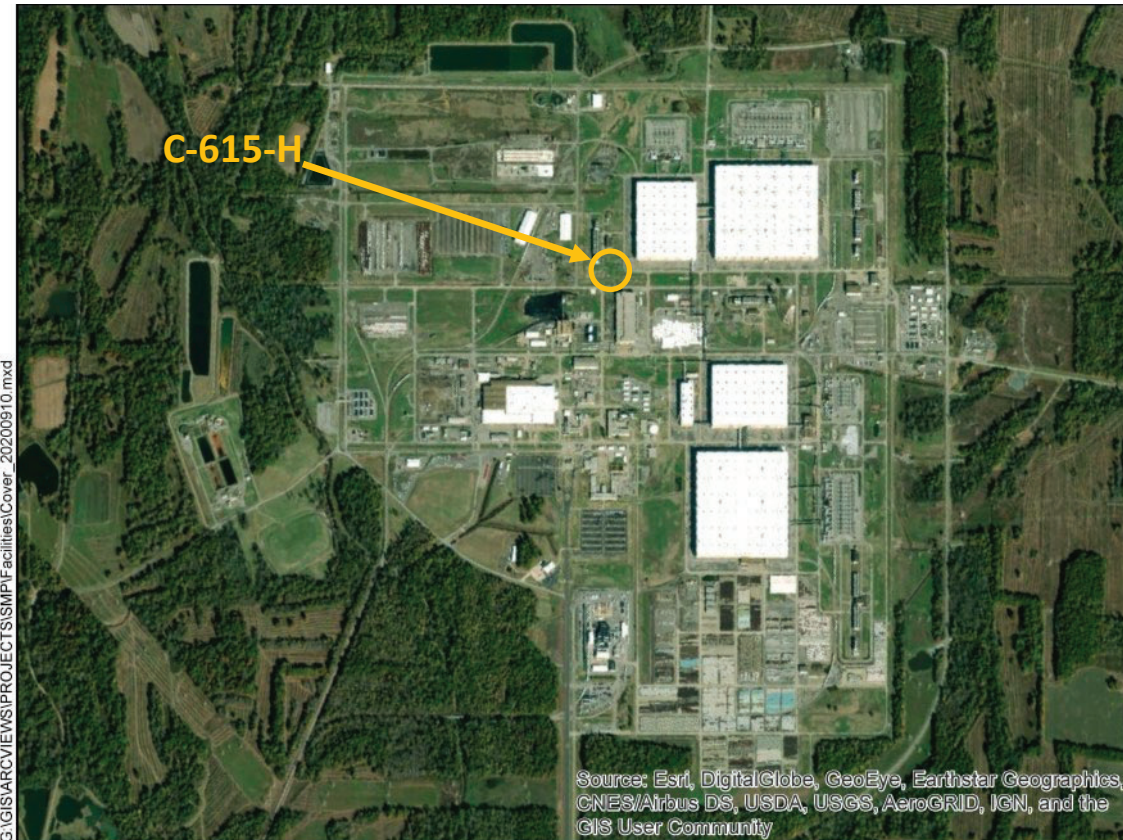


# C-615-H Sewage Lift Station



## Facility Overview Briefing

October 19, 2021

Reflects consultation with EPA and Kentucky in accordance with the Site Management Plan that occurred on October 18, 2021.

# Purpose

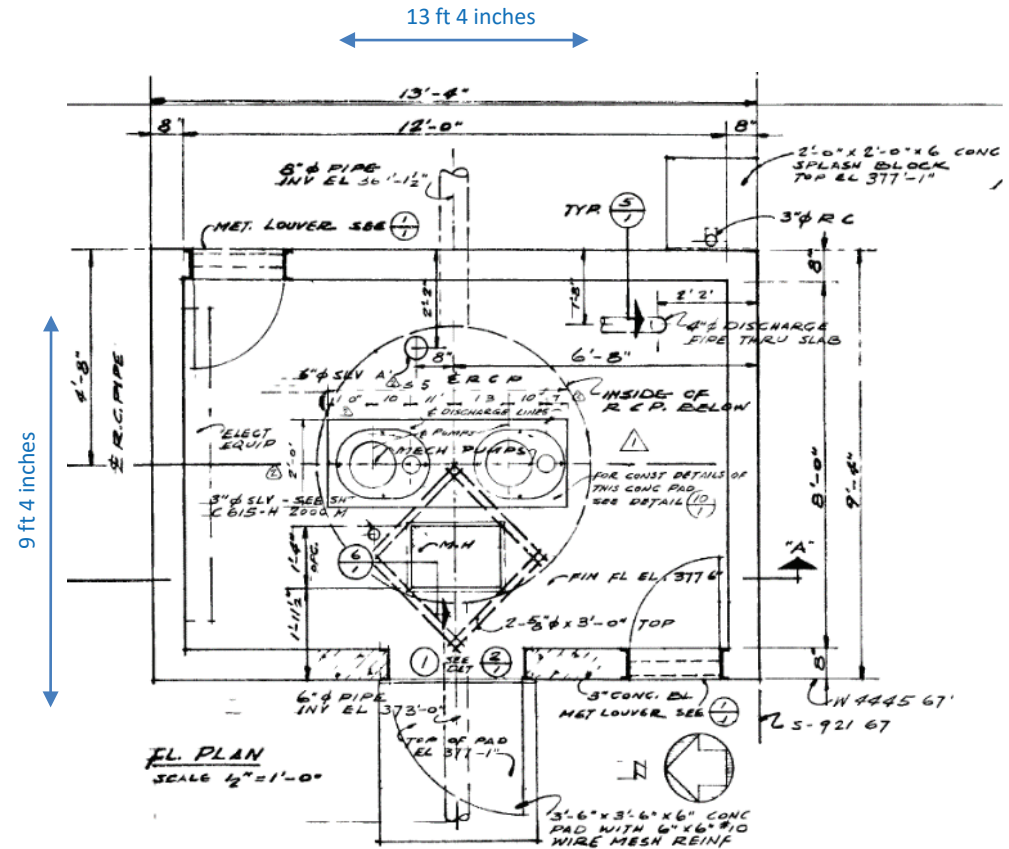
- The C-615-H Sewage Lift Station is a candidate for future demolition and disposal, contingent upon funding priorities.
- Listed in Appendix 6 of the Site Management Plan (SMP); requires consultation with EPA and Kentucky for CERCLA screening prior to demolition.
- This presentation is intended to serve 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) 17.



C-615-H Facility Photo: 7/2021

# Construction History

- C-615-H is located within the Paducah Site security fence, southwest of the C-335 process building.
- The facility was constructed in 1954.
- The facility is a single-story concrete block building with a vented hatched roof.
  - ❑ The facility contains a subsurface wet well that is constructed of a 72-inch diameter reinforced concrete pipe that is approximately 21.6 ft deep.
    - The wet well houses the subsurface portion of the facility’s two pumps.
    - Access to the wet well is via a 16-inch x 24-inch manhole labeled as a confined space.
- The facility is approximately 124 ft<sup>2</sup>.
  - ❑ Measuring ~13 ft 4 inches x ~9 ft 4 inches

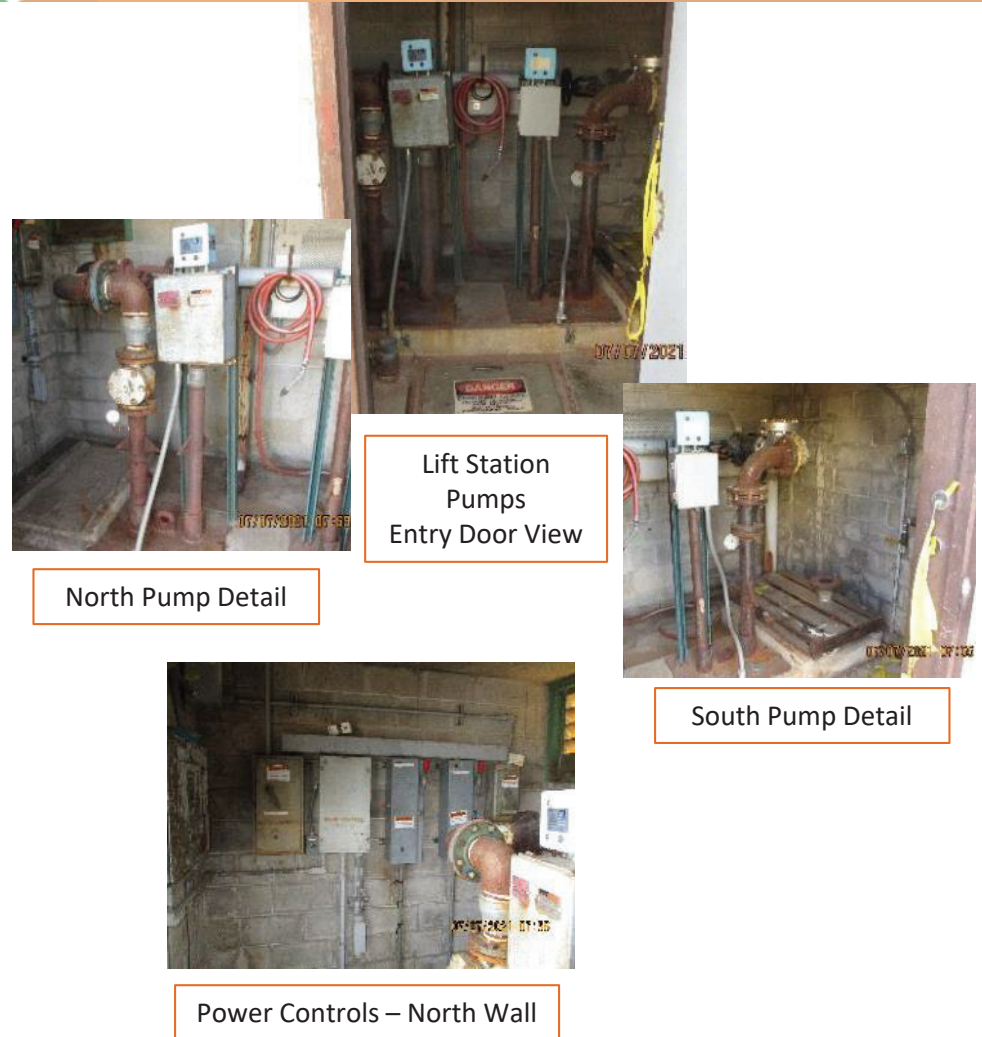


Floor Plan View: Excerpt from Engineering Drawing C-615-H 1A\_0001\_0003\_U-077779, dated 1952



# Operational History

- C-615-H was originally built and operated as a sewage lift station from its construction in 1954 to present.
  - ❑ C-615-H acts as one of several lift stations that raise sewage to elevations that will allow flow through various lines to the C-615 Sewage Treatment Plant for treatment.
  - ❑ The pumps located within C-615-H have undergone various upgrades and reconfiguration since the facility's original construction.
    - In 1966, the concrete pad and piping were reconfigured that allowed for upgrading the pumps, which included installation of suction pipes within the wet well.
    - In 1993, the suction pipes located in the wet well were replaced with submersible pumps.
    - The submersible pumps require periodic replacement (on average about every two years).
  
- USEC leased the facility in the early 1990s and continued to use C-615-H as a sewage lift station.
  - ❑ The facility also was used to store small quantities of bagged granular sodium thiosulfate from 2010 through 2013.
  
- C-615-H transitioned from USEC to DOE in 2014.



C-615-H Facility Photos: 7/2021

# Current Status

- C-615-H remains operational, acting as one of several lift stations that raise sewage to elevations that will allow flow through various lines to the C-615 Sewage Treatment Plant for treatment.
  
- Walkdown inspection conducted in July 2021 and employee interviews confirmed no unusual conditions.
  - ❑ Access to the wet well is via a 16-inch x 24-inch manhole labeled as a confined space.
  - ❑ Facility is vented to the outside via the roof.
  - ❑ Not used for radiological storage; facility does not contain any radiological postings.
  - ❑ No generator staging area (GSA) or satellite accumulation area (SAA).
  - ❑ No asbestos-containing material (ACM) has been identified during previous asbestos inspections.
  - ❑ No known chemical spills have occurred within the facility; however, analysis of the sanitary sewage sludge at the C-615 Sewage Treatment Plant indicates that organic, inorganic, and radiological contaminants historically have been released into the sanitary sewer system.



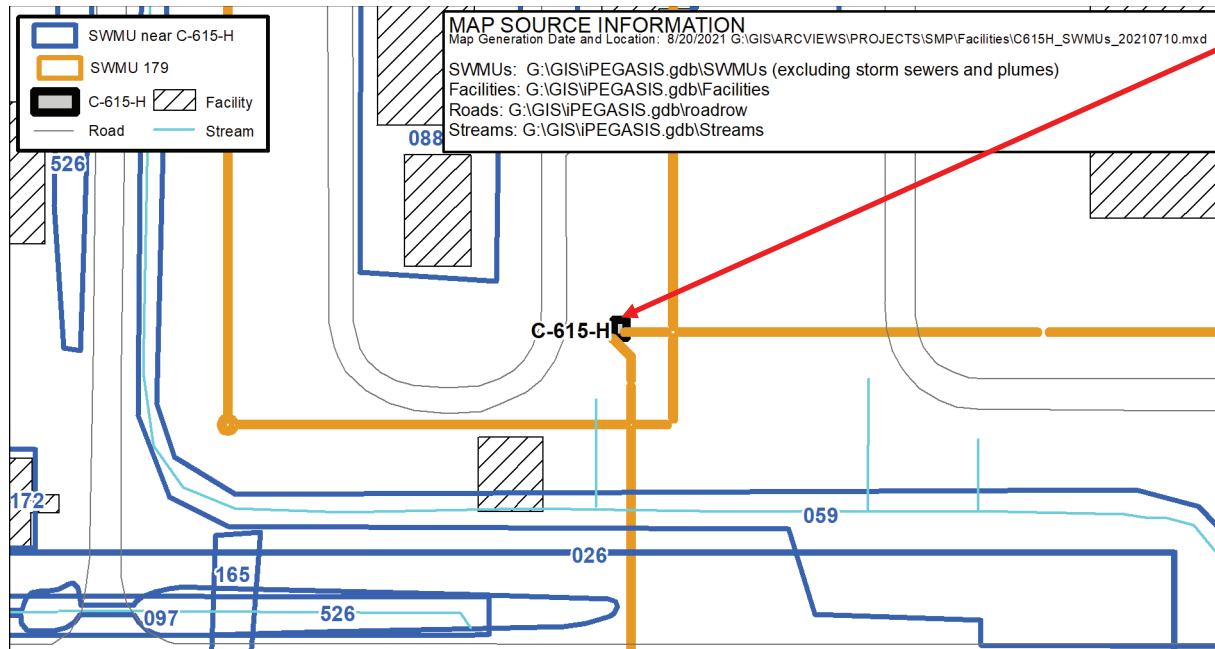
Confined Space Entry to Wet Well



Roof Hatch

C-615-H Facility Photos: 7/2021

# Environmental Impacts (Solid Waste Management Units)



- The C-615-H Sewage Lift Station is not designated as a SWMU/AOC; however, the plant sanitary sewer system is designated as SWMU 179 and analysis of the sanitary sewage sludge at the C-615 Sewage Treatment Plant indicates that organic, inorganic, and radiological contaminants historically have been released into the sanitary sewer system.

SWMU No.	Facility Name	Current Status
026	C-400 to C-404 Underground Transfer Line	Soils OU
059	NSDD (Inside)	Final CSOU
088	C-635 Pumphouse and Cooling Tower slab and underlying soils	Soils and Slabs OU
097	C-601 Diesel Spill	SWOU
165	C-616-L Pipeline and Vault Soil Contamination	Soils OU
172	C-726 Sandblasting Facility	Facility D&D OU
179	Plant Sanitary Sewer System	Soils and Slabs OU
526	Internal Plant Drainage Ditches (includes KPDES 016)	SWOU

# 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-H was built and has operated as a sewage lift station, acting as one of several lift stations that raise sewage to elevations that will allow flow through various lines to the C-615 Sewage Treatment Plant for treatment from its construction in 1954 to present; C-615-H also served as temporary storage for small quantities of bagged granular sodium thiosulfate from 2010 to 2013.
  - ❑ Building materials used for construction could contain lead-based paints and ACM, both of which can be effectively verified during a predemolition inspection and properly managed using standard demolition and waste management practices.
    - Historical inspections and construction information indicated that ACM is not present; however, the material used for the roof will require further evaluation prior to demolition.
  - ❑ No history or records of chemical use or spills that would pose environmental release threat.
    - Analysis of the sanitary sewage sludge at the C-615 Sewage Treatment Plant indicates that organic, inorganic, and radiological contaminants historically have been released into the sanitary sewer system.

# 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 (including the wet well) 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-615-H 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.



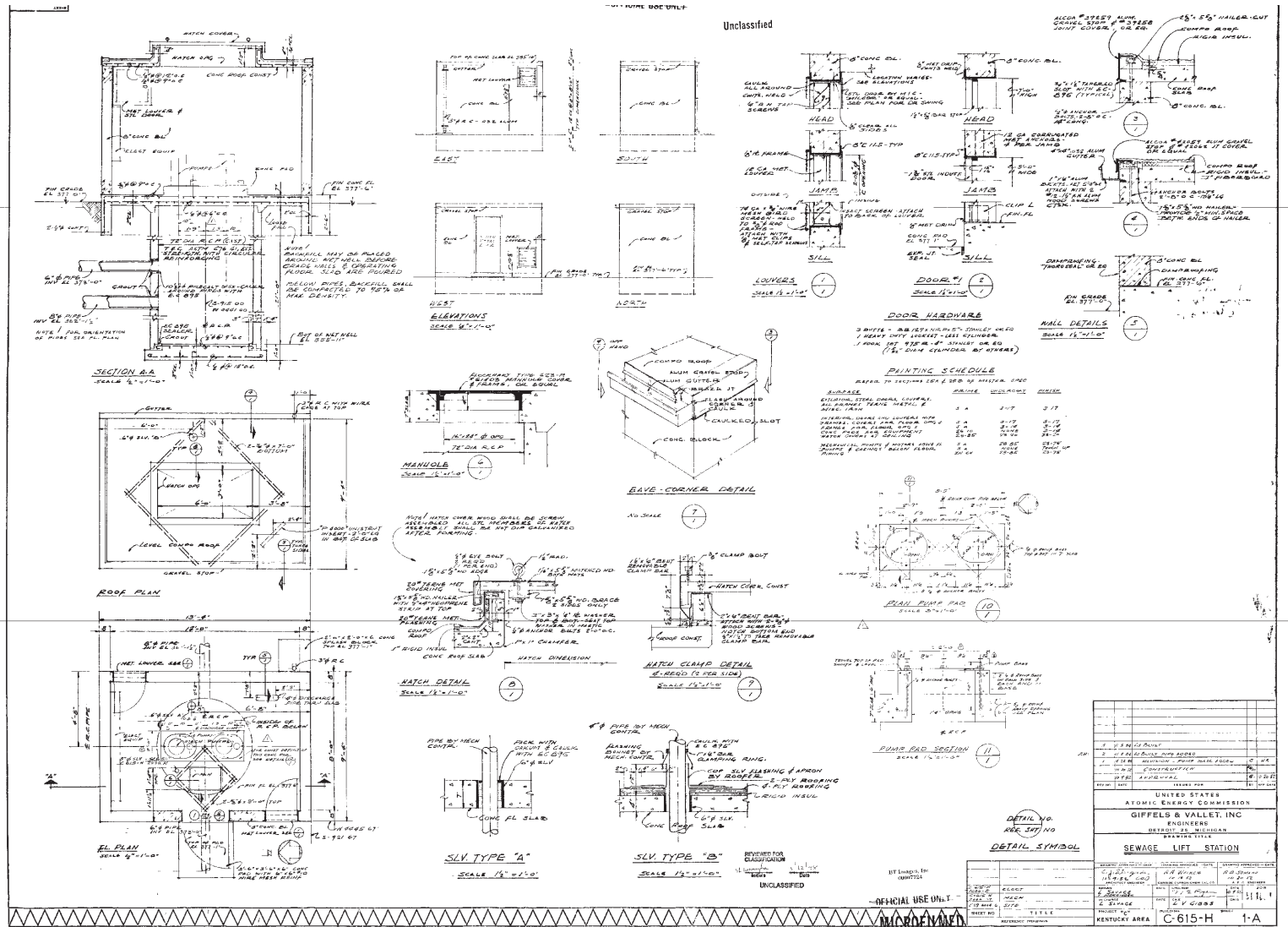
# Conclusion and Recommendations

- 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-615-H facility will be documented in the appropriate annual SMP revision.
  
- The future evaluation conducted for GA 17 will further evaluate the potential threat of release associated with the slab/soils from the C-615-H facility.

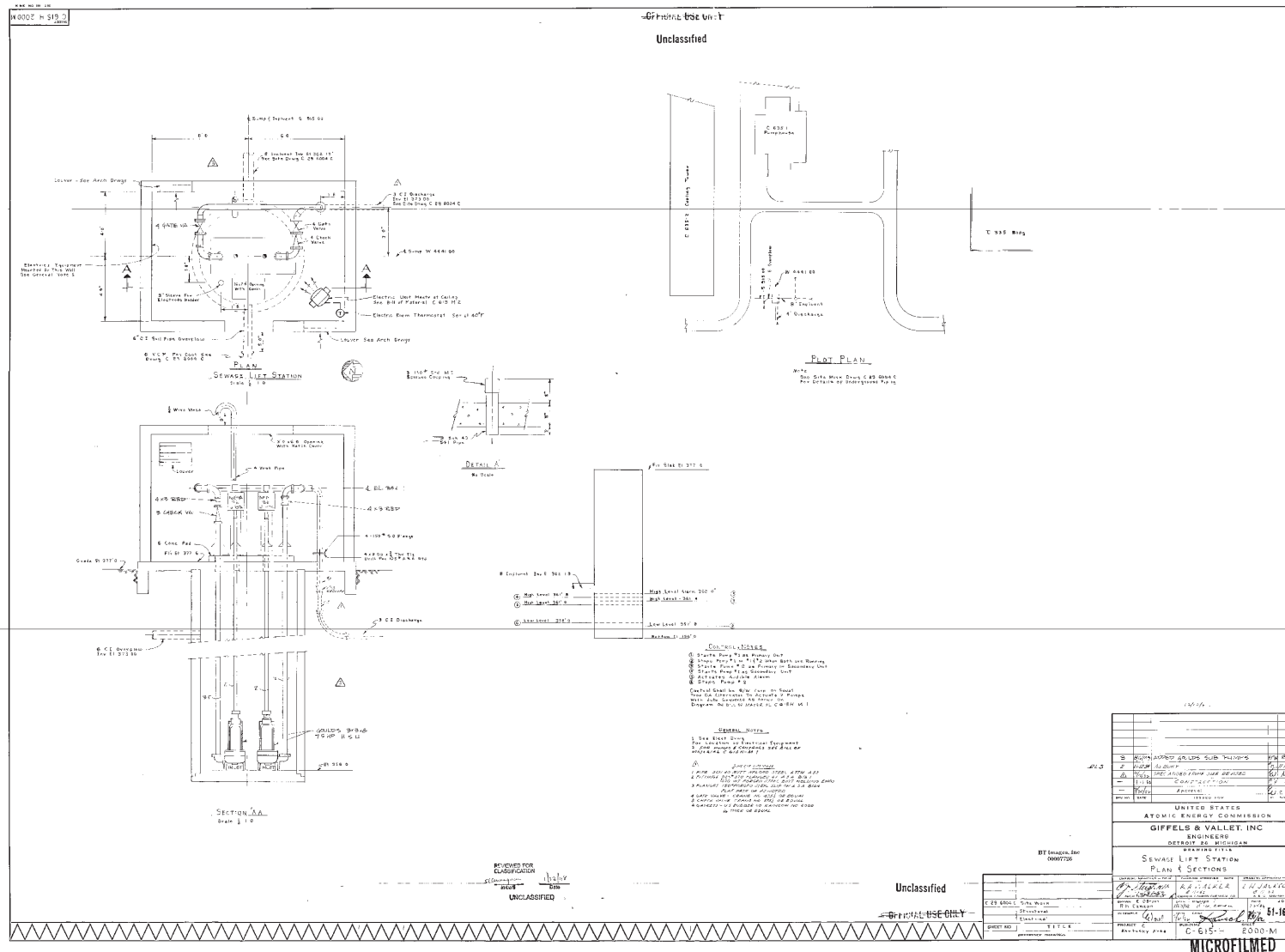
# C-615 Sewage Lift Station

## BACKUP INFORMATION

# C-615-H Engineering Drawings



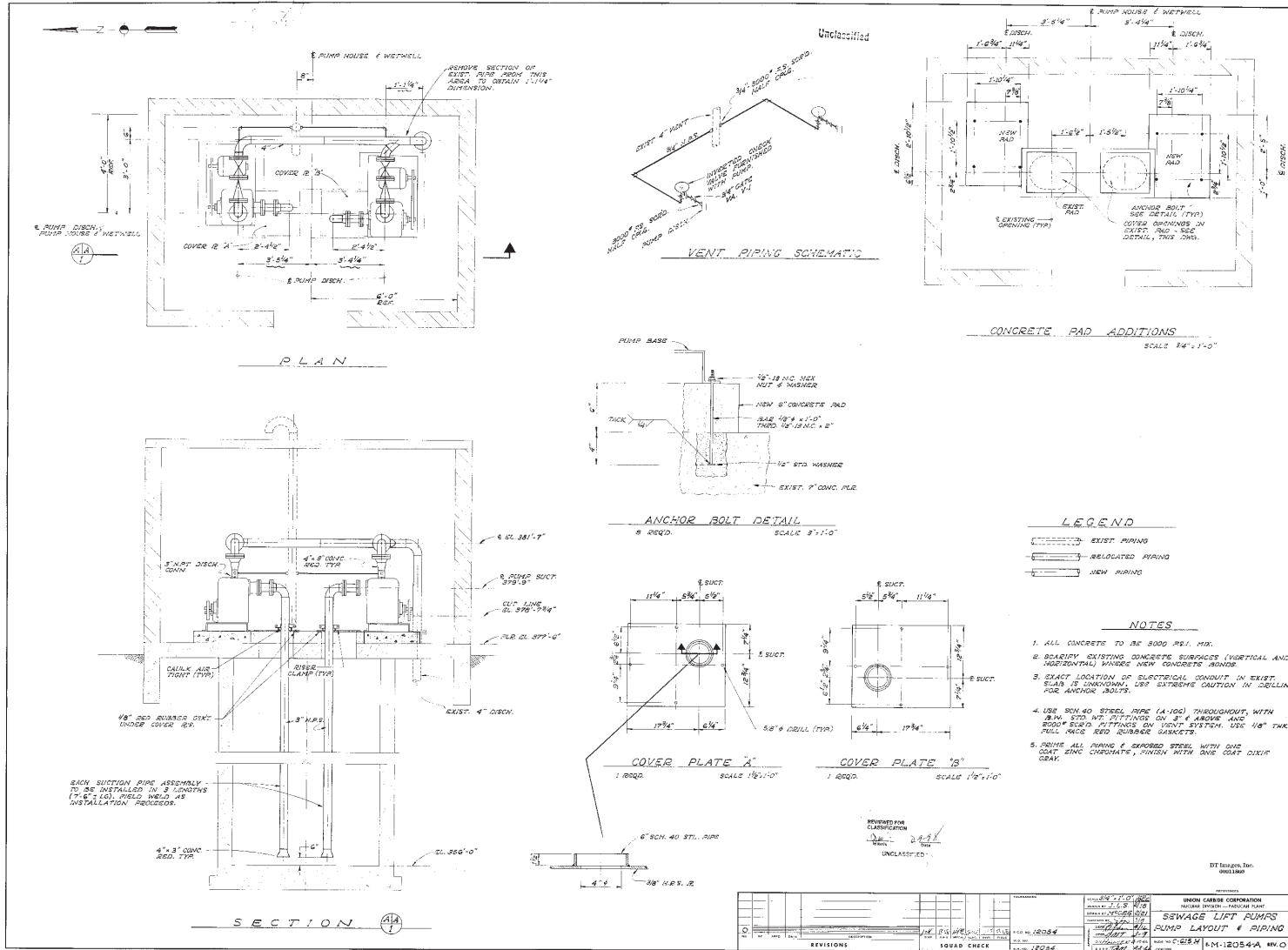
# C-615-H Engineering Drawings



C-615-H 2000-M\_0001\_0003\_U-077801



# C-615-H Engineering Drawings



# C-615-H 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:
  - Facility Manager (42 years plant expertise)
  - Utility Operations Subject Matter Expert (45 years plant expertise; operator/manager/supervisor)
  - Compliance Subject Matter Expert (45 years plant expertise; trained on system)
- Documents:
  - Report for Environmental Audit Supporting Transition of the Gaseous Diffusion Plants to the United States Enrichment Corporation, DOE/OR/1087&V4 (June 1993)
  - Paducah Asbestos Survey Executive Summary (Lee Wan Report), October 1990