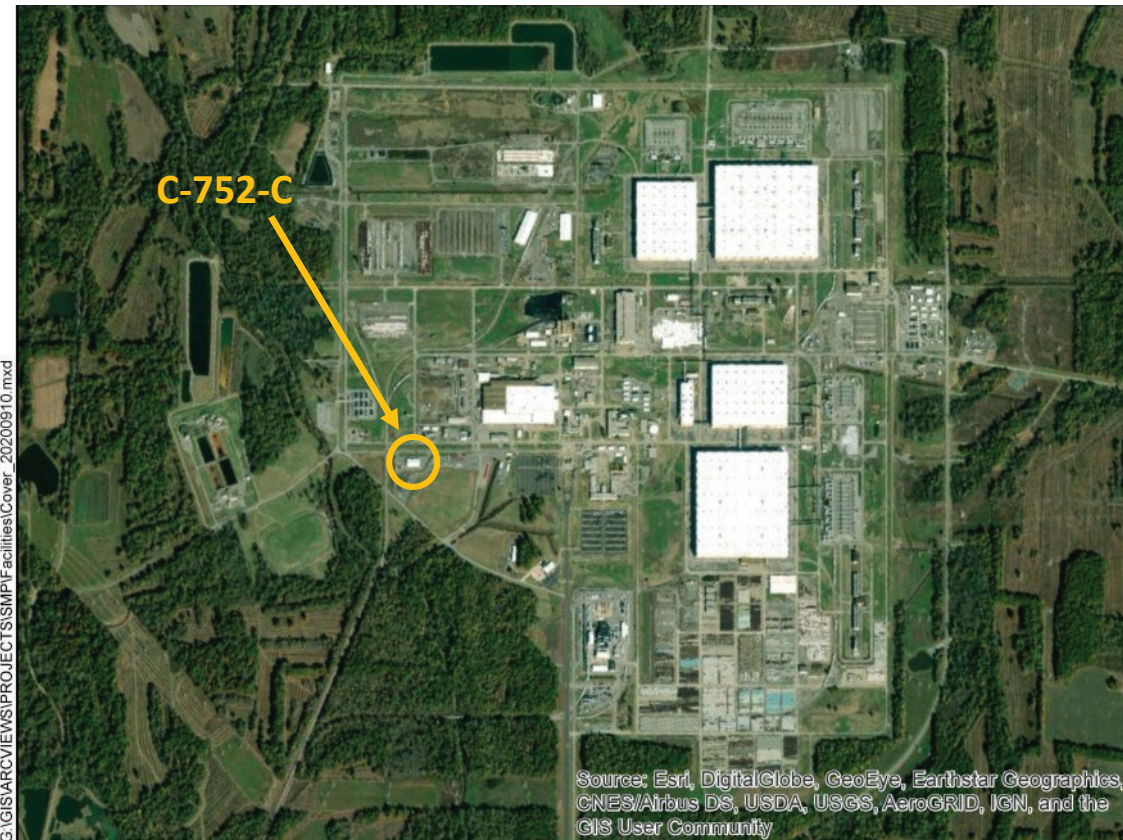


C-752-C Off-Site* Decontamination Facility



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, and includes incorporation of comments from those discussions.

* "Off-Site" relates to the name of the facility and is not intended to imply a CERCLA off-site determination.

Purpose

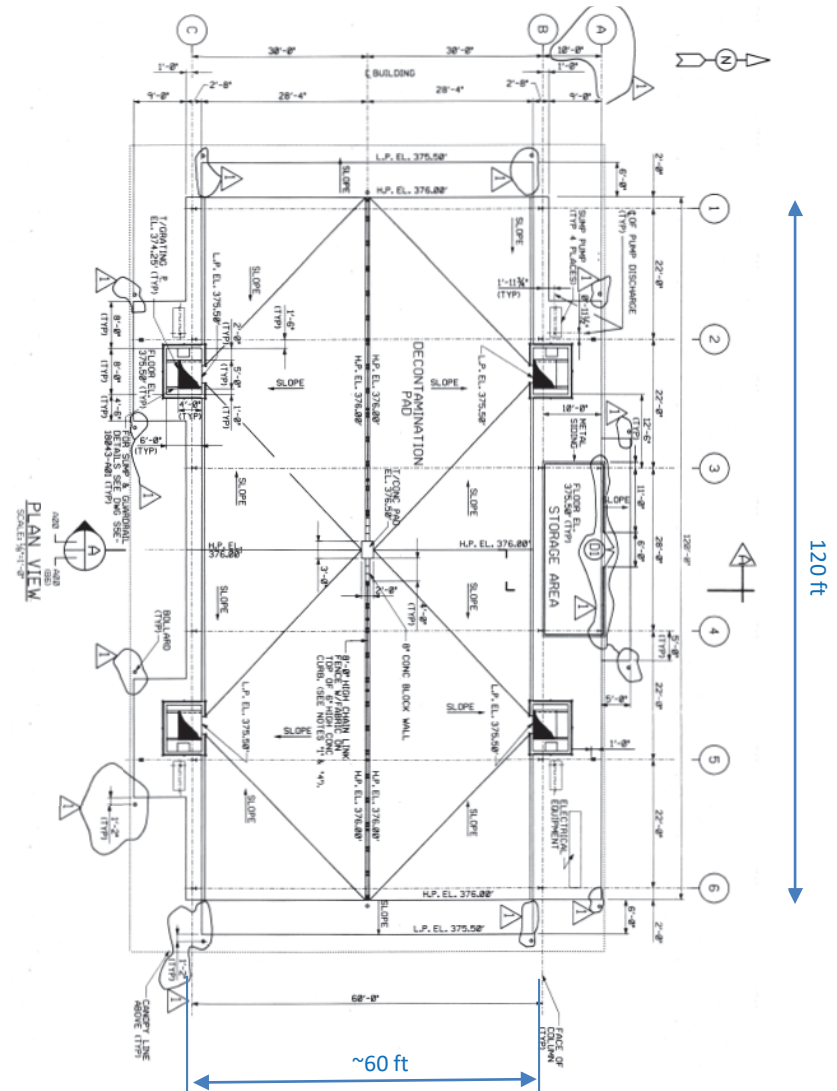
- The C-752-C Off-Site Decontamination Facility is a candidate for future demolition and disposal, contingent upon funding priorities.
- Listed in Appendix 6 of the Site Management Plan (SMP); requires consultation with EPA and Kentucky for CERCLA screening prior to demolition.
- This presentation is 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 further CERCLA evaluation under Geographical Area (GA) 2.



C-752-C Facility Photo: 7/2021

Construction History

- C-752-C is located outside the Paducah Site security fence in the southwest portion of the plant on the south side of Water Works Road.
- The facility was constructed in 1994/1995 of prefabricated metal on a concrete poured slab with an average thickness of 10 inches.
 - ❑ The structure resembles a standard commercial car wash in form and function.
 - ❑ It consists of steel framing with a metal roof and is generally open on all four sides with partial concrete walls in some areas.
 - ❑ The floor is divided into four slanted bay surfaces with each bay individually sloped to drain any free-flowing liquids from the center of the bay to its own dedicated concrete sump.
 - ❑ Each bay with its dedicated sump has a total volume capacity of ~ 3,400 gallons.
 - ❑ The floor has 6-inch curbing and no floor drains.
- The facility is ~7,200 ft² (excluding the sumps and exterior storage area on the north side).
 - ❑ Measuring ~120 ft x ~60 ft.



Floor Plan View: Excerpt from Engineering Drawing A5E18043A00, dated 1995

Operational History

- C-752-C serves as a key environmental remediation support facility and provides the following primary functions.
 - ❑ Cleaning and decontamination of useable equipment (e.g., augers, drill rigs, sampling equipment).
 - ❑ Storage and treatment of wastewater (e.g., purged well water, decon water).
 - ❑ Sorting, packaging, characterization and staging/storage of environmental remediation waste pending disposition.
- The KPDES Permit authorizes wastewater treatment at C-752-C using physical separation (e.g., filter press, air sparging, carbon filtration) and discharge through KPDES Outfall 001.
- Filter presses/geobags are used in conjunction with the sumps to filter/settle out suspended solids from wastewater prior to treatment at the C-612 Facility (as needed).
- C-752-C was not leased by USEC and it has remained under DOE operation and functioned as described above since its initial construction in the mid-1990s to present.



Poly wastewater storage tanks and a geobag and filter press



Sump #4

Current Status

- Walkdown inspection conducted in July 2021 and employee interviews confirmed no unusual conditions.
 - ❑ No signs of cracks in the pad and no floor drains are present but the pad does contain sumps.
 - ❑ Currently contains a CERCLA staging area but has historically contained generator staging areas (GSA), satellite accumulation areas (SAA), and a 90-day RCRA accumulation.
 - ❑ No known asbestos-containing materials (ACM) or lead-based paint.
 - ❑ In 2002, a potable water spill occurred on the pad and sampling confirmed no detectable trichloroethene was present.
 - ❑ No known chemical spills have occurred.
 - ❑ Two flammable storage cabinets contain small quantities of chemicals, which are stored in accordance with regulatory requirements and site procedures.
 - ❑ The entire facility is designated as a radioactive material area (RMA) due to the potential for storage of radiologically contaminated environmental media.



Sump Pit #1 and Frac Tank and Poly Tanks



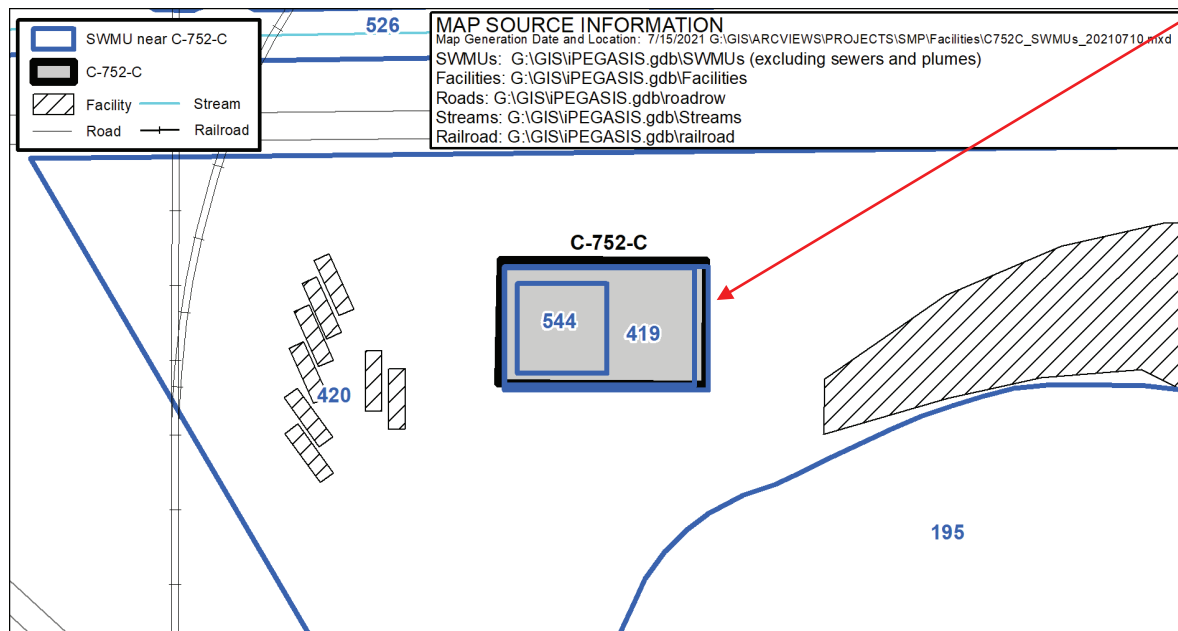
Flammable Chemical Storage Cabinet

Waste Storage Area



Office Trailer

Environmental Impacts (Solid Waste Management Units)



- SWMU 419 and SWMU 544 are both associated with the C-752-C Off-Site Decontamination Facility.
 - ❑ The existing SAR for SWMU 419 indicates it functioned as a decontamination pad and historically contained a GSA and SAA which are now no longer present; however, the facility continues to be used for decontamination, wastewater treatment, and as a staging area for CERCLA waste.
 - ❑ The existing SAR for SWMU 544 indicates it historically consisted of a 90-day accumulation area that is now no longer present.
 - ❑ Both SWMU 419 and SWMU 544 were granted an NFA by KDWM.

SWMU No.	Facility Name	Current Status	NFA Approval By
195	Curlee Road Contaminated Soil Mounds	Soils OU	
419	G-752-C -01	NFA	KDWM 8/28/2007
420	G-752-C -02	NFA	KDWM 3/08/2007
526	Internal Plant Drainage Ditches (includes KPDES 016)	SWOU	
544	T-752-C-01 (90-Day Storage Area)	NFA	KDWM 01/28/2004

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-752-C has operated as a key support facility since initial construction in mid-1990s to present; wastewater treatment operations are conducted entirely within a containment system consisting of a 10-inch concrete floor with 6-inch curbing divided into four slanted bay surfaces that are sloped to drain any free-flowing liquids from the center of the bays to its own dedicated concrete sump.
 - ❑ Building materials used for construction do not contain known ACM or lead-based paints.
 - ❑ No history or records of chemical spills that would pose an environmental release threat.
 - ❑ KDWM inspected the facility in the 2004 timeframe and no environmental concerns were noted, and both SWMU 419 and SWMU 544 were approved for an NFA.

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 and sumps 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-752-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 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)).

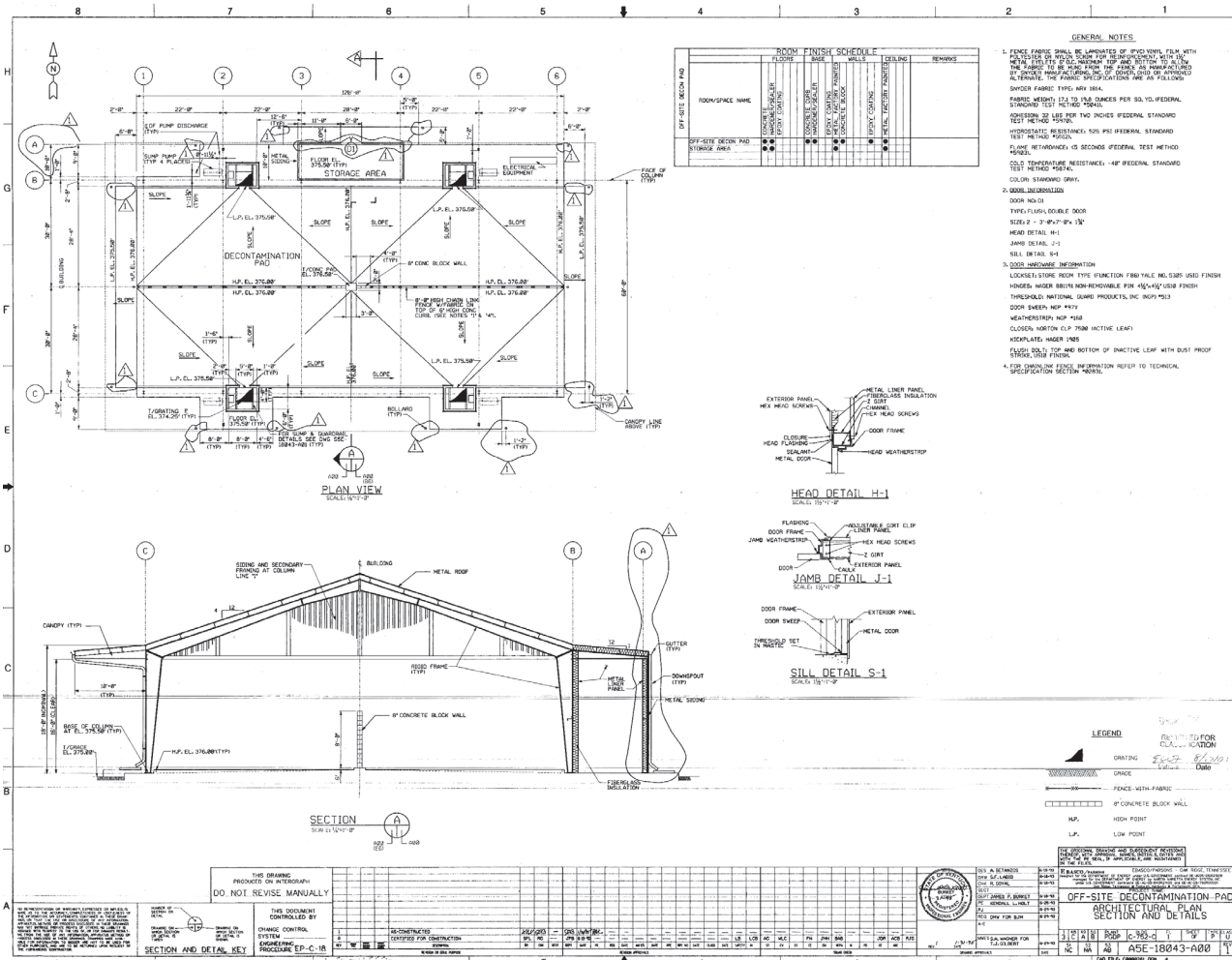
- The existing SAR for SWMU 419 will be updated and revised to reflect the continued operation of C-752-C for decontamination activities, wastewater storage/treatment, and as an active CERCLA staging area.
 - ❑ The remaining slab/soils will be subject to a future CERCLA evaluation under GA 2.

- Removal of the C-752-C facility will be documented in the appropriate annual SMP revision.

C-752-C Off-Site Decontamination Facility

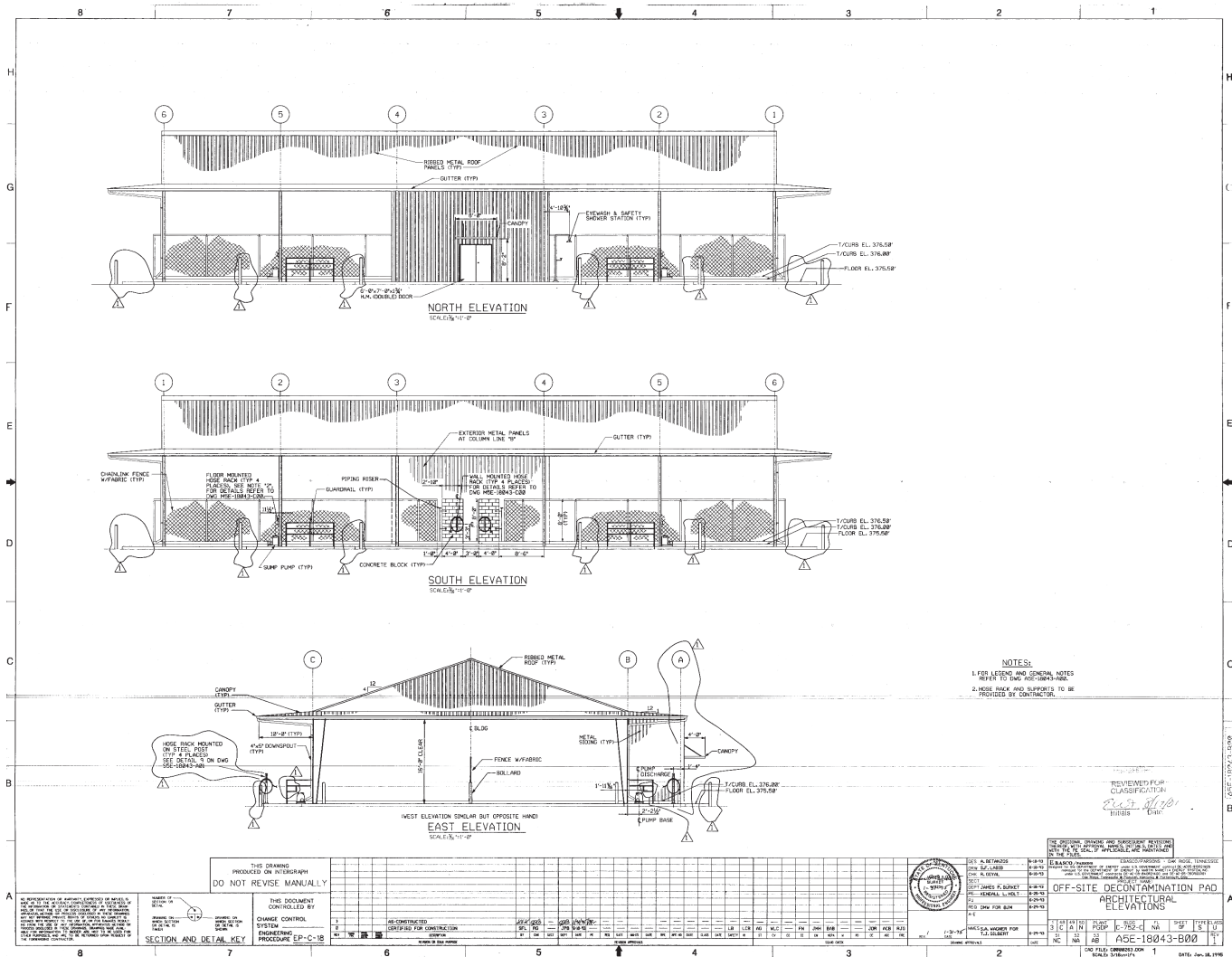
BACKUP INFORMATION

C-752-C Engineering Drawings



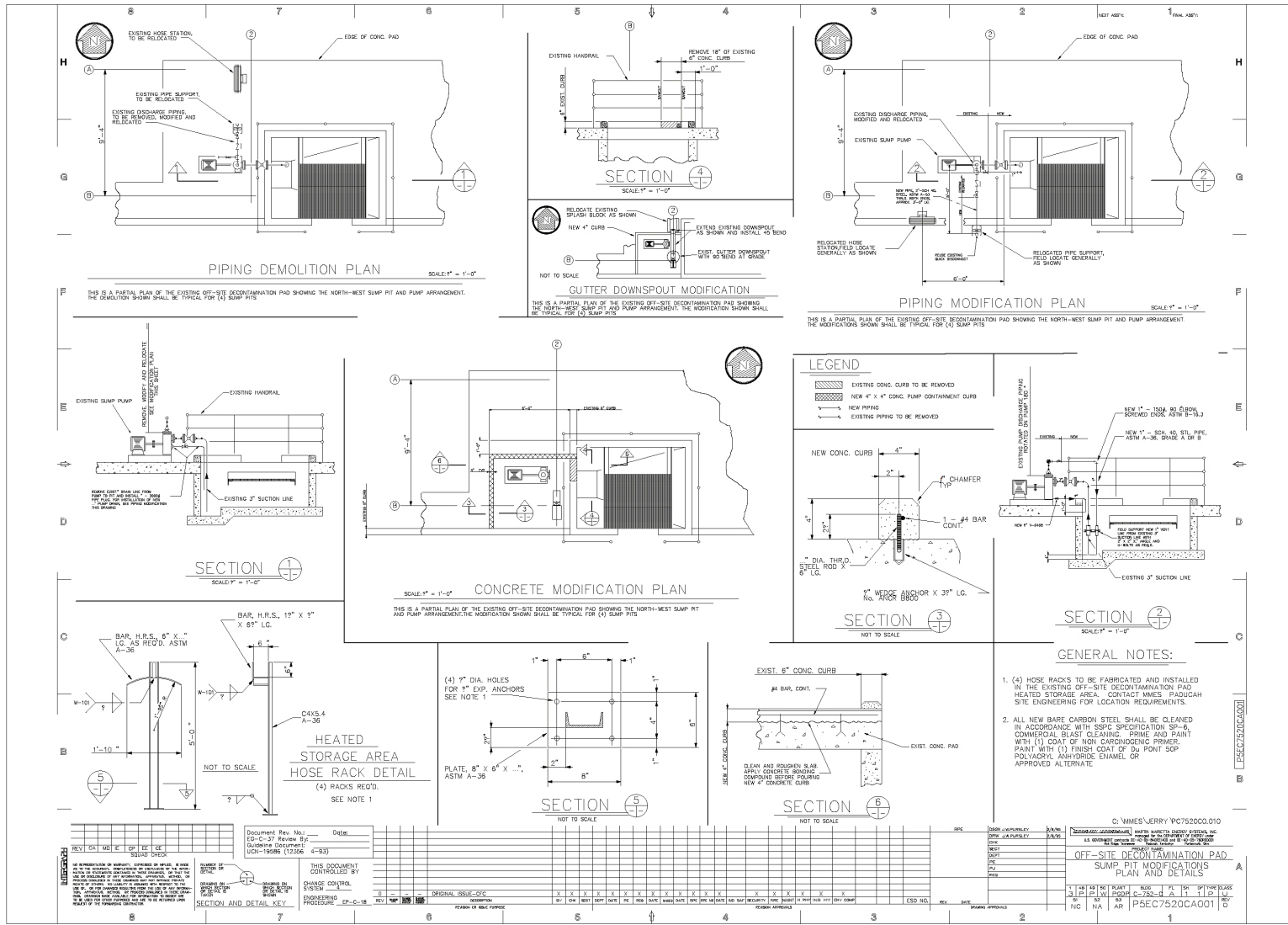
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C-752-C Engineering Drawings



A5E18043B00

C-752-C Engineering Drawings



P5EC7520CA001

C-752-C Sources

- Engineering Drawings:
 - Provided in presentation
- Databases:
 - Issues Management System
 - Regulatory Compliance Archive Spill Log (pre-2018)
 - PCB Database (1989 – 2021)
 - Active GSAs and SAAs Master List
- Employee Interviews:
 - Facility Manager (29 years plant expertise)
 - Compliance Subject Matter Expert (45 years plant expertise)
 - RADCON Manager (45 years plant expertise)
 - Engineering Subject Manager Expert (16 years plant expertise)
 - Waste Operations Subject Matter Expert (20 years plant expertise)
- Documents:
 - Paducah Gaseous Diffusion Plant Sitewide Strategy Facility Background Information, FPDP-RPT-0021, May 2016
 - SWMU Assessment Reports for SWMU 419 and SWMU 544
 - KDWM Correspondence dated January 28, 2004, documenting facility inspection and granting NFA
 - Preliminary Hazard Screening (PHS-PH-RAD-0072 R8)
 - Four Rivers Nuclear Partnership, LLC, Paducah Deactivation and Remediation Project Waste Management Plan (CP2-WM-0001 FR2)