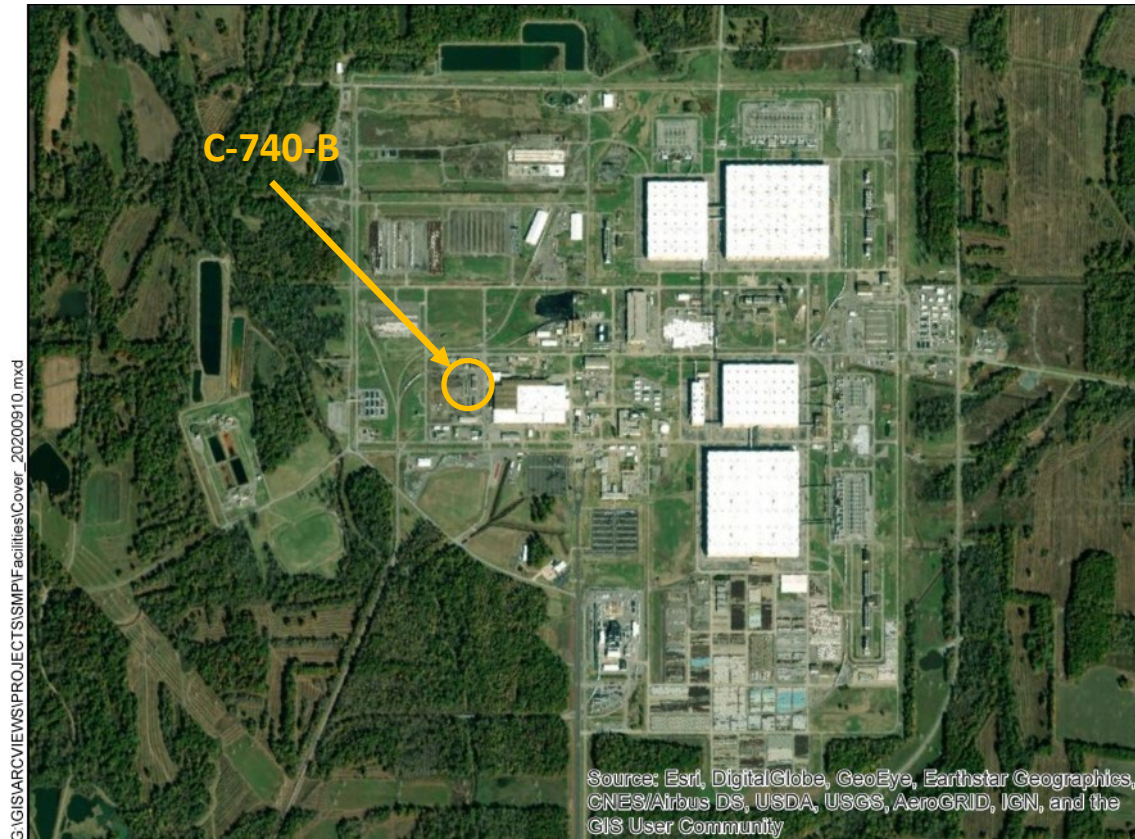


C-740-B Oil Drum Storage Shelter



Facility Overview Briefing

July 13, 2021

Reflects consultation with EPA and Kentucky in accordance with the Site Management Plan that occurred on June 28, 2021.

Purpose

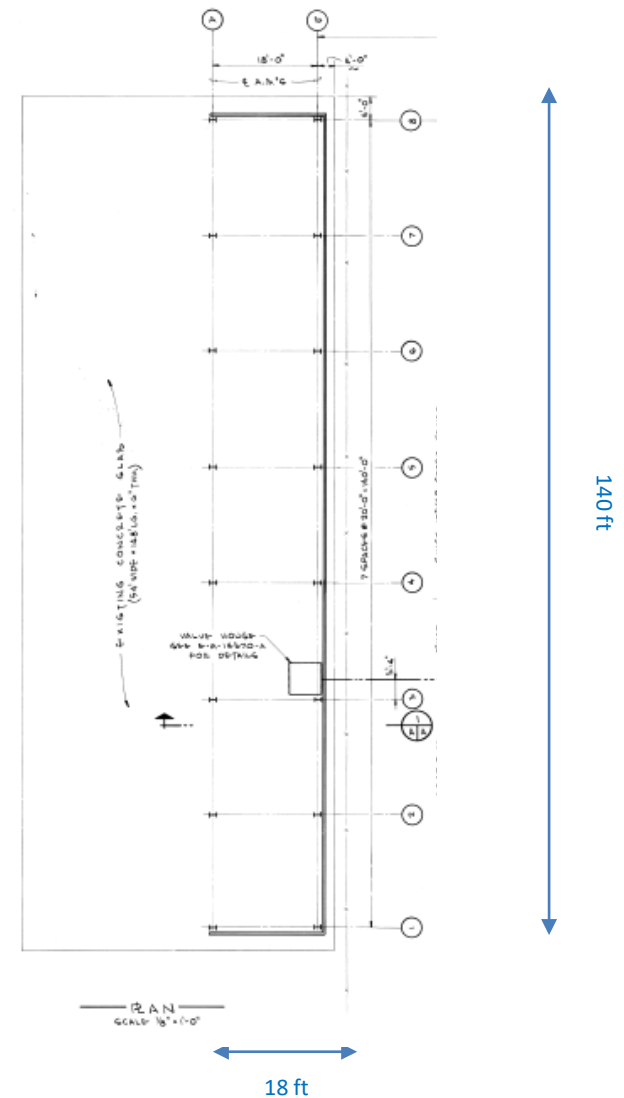
- The C-740-B Oil Drum Storage Shelter is a candidate for future demolition and disposal, contingent upon funding priorities.
- Listed in Appendix 6 of the Site Management Plan (SMP); requires consultation with EPA and Kentucky for CERCLA screening prior to demolition.
- This presentation is intended 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 as part of a future site evaluation conducted under Appendix 4 of the SMP.



C-740-B Facility Photo: 3/2021

Construction History

- C-740-B is located within the Paducah Site security fence, west of C-720 Maintenance and Stores Building and north of C-743 Office Building and is located within the C-740 Material Storage Yard.
- The facility was constructed in 1975.
- The facility is constructed of structural steel/sheet metal on a concrete slab (6-inch thick).
 - ❑ The structure is not fully enclosed; it is open on the west side.
 - ❑ The structure is divided into seven separate diked bays.
 - ❑ The structure was specifically designed and constructed to store oil drums and to contain any spilled materials.
 - ❑ Sump pumps or floor drains were not included as part of the structure design.
- The facility is approximately 2,520 ft².
 - ❑ Measuring ~ 18 ft x ~ 140 ft.



Floor Plan View: Excerpt from Engineering Drawing E-S-14370-A, dated 1974

Operational History

- C-740-B was historically operated as a storage supply facility that stored new product materials beginning in 1975.
 - ❑ Salt, hydrated lime, various drums of oil, soda ash, mineral spirits, propylene glycol, kerosene, lacquer thinner, sodium hydroxide, ethyl alcohol, Freon 113, and xylene.
 - ❑ No asbestos-containing materials (ACM).
 - ❑ No PCB-containing oil.
- While C-740-B historically contained various types of new product materials, its primary purpose was storage for new drums of oil and grease used for various process equipment through out the plant.
- In the 1990s, the existing pad was upgraded.
 - ❑ Existing pad was scarified and cleaned.
 - ❑ All joints and cracks were sealed.
 - ❑ A surface primer and elastomer coating was applied to the pad prior to the addition of new curbing.

Bay 1 – North End
(Water staining)



Bay 2 – North to South
(White drums are new/empty plastic drums)

Bay 3 – North to South



Cracks with grass



Operational History

- USEC leased the facility in the early 1990s and continued to use C-740-B as a storage supply facility that stored new drums of oil and grease.
- C-740-B transitioned from USEC to DOE in 2014 and continued to operate as a storage supply facility.
- Once the plant ceased operations, the need for oil and grease decreased and C-740-B has been slowly emptied of its drums.
 - ❑ The drums that remain are earmarked for future use.
 - ❑ Drums are inspected on a monthly basis.
- In early 2021, a temporary decontamination pad was established in the southern most bay in support of C-400 deactivation activities.
 - ❑ The temporary decontamination pad was recently removed and the area has been resurveyed.
 - ❑ Two pieces of equipment (grapple and bucket) associated with C-400 deactivation activities remain at C-740-B and are labeled as radioactive material.



Bay 4 – North to South
(Wrapped C-400 deactivation equipment tagged as radioactive material)



Bay 5 – North to South
(Wrapped C-400 deactivation equipment tagged as radioactive material)



Bay 6 – North to South
(Clean grapple not associated with C-400 deactivation)



Bay 7 –South End
(Former Decontamination Pad)

Current Status

- C-740-B continues to be used as a storage facility for the remaining drums of oil and grease and some miscellaneous equipment associated with C-400 deactivation activities.

- Walkdown inspections conducted in March and April 2021 and employee interviews confirmed no unusual conditions.
 - ❑ Facility is located within a radiological material area (RMA).
 - ❑ No floor sumps or floor drains are present.
 - ❑ Concrete pad contains cracks.
 - ❑ South end bay used as a former decontamination area.
 - ❑ No generator staging area (GSA) or satellite accumulation area (SAA).
 - ❑ Minor oil/grease leaks contained within the diked area of the building which were immediately addressed.
 - ❑ No known ACM or PCBs.
 - ❑ New empty white plastic drums.
 - ❑ Chemical inventory for 2020 lists the following.
 - Petroleum oil
 - Hydraulic fluid
 - Miscellaneous type greases
 - Shell turbo oil
 - Antifreeze/Coolant
 - Transmission fluid
 - ❑ Wrapped C-400 deactivation equipment tagged as radioactive material.



View
North to
South

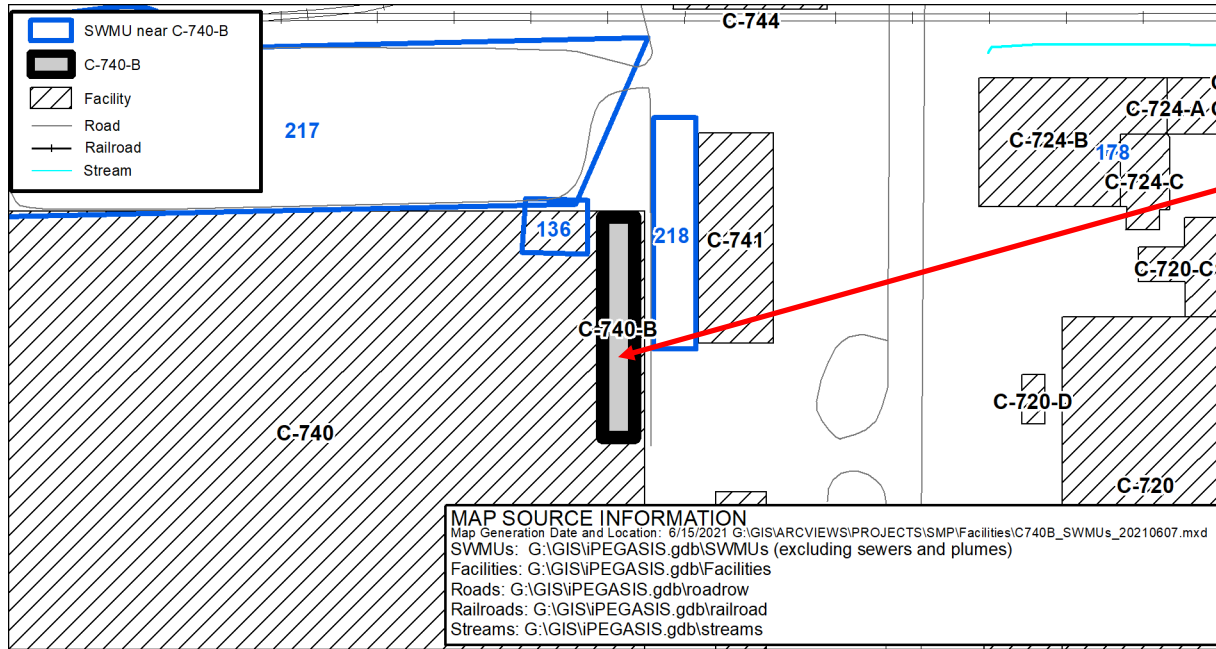


Bay 5 – North to South
Floor Staining



Bay 7 –South End
Former
Decontamination
Area

Environmental Impacts (Solid Waste Management Units)



• C-740-B is not designated as a SWMU/AOC.

SWMU No.	Facility Name	Current Status	NFA Approval By
136	C-740 TCE Spill Site	NFA	EPA and KY via WAG 1&7 ROD 8/10/1998
178	C-724-A Paint Spray Booth slab and underlying soils	Soils and Slab OU	
217	OS-06	Soils OU (Soils Remedial)	
218	OS-07 slab and underlying soils	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-740-B served as a storage supply facility that stored new product material from its construction in 1975 to present; C-740-B continues to be used as a storage facility for the remaining drums of new oil and grease earmarked for future use and some miscellaneous equipment associated with C-400 deactivation activities.
 - ❑ 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.
 - C-740-B contains two pieces of equipment (grapple and bucket) associated with C-400 deactivation activities that are wrapped in plastic and labeled as radioactive material.

- Process knowledge and employee interviews indicate that the historical use at C-740-B involved the storage of chemicals and equipment that could have the potential to pose a release threat to the concrete pad and underlying soils.
 - ❑ Evidence of oil staining on the floor from spills within the diked area of the building.
 - ❑ Use of one of the bays as a temporary decontamination pad for C-400 deactivation equipment and current storage of a grapple and bucket from C-400 deactivation activities that is wrapped and labeled as radioactive material.
 - ❑ Visible signs of cracking within the pad.

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 (including the pieces of equipment associated with C-400 deactivation activities) 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-740-B 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

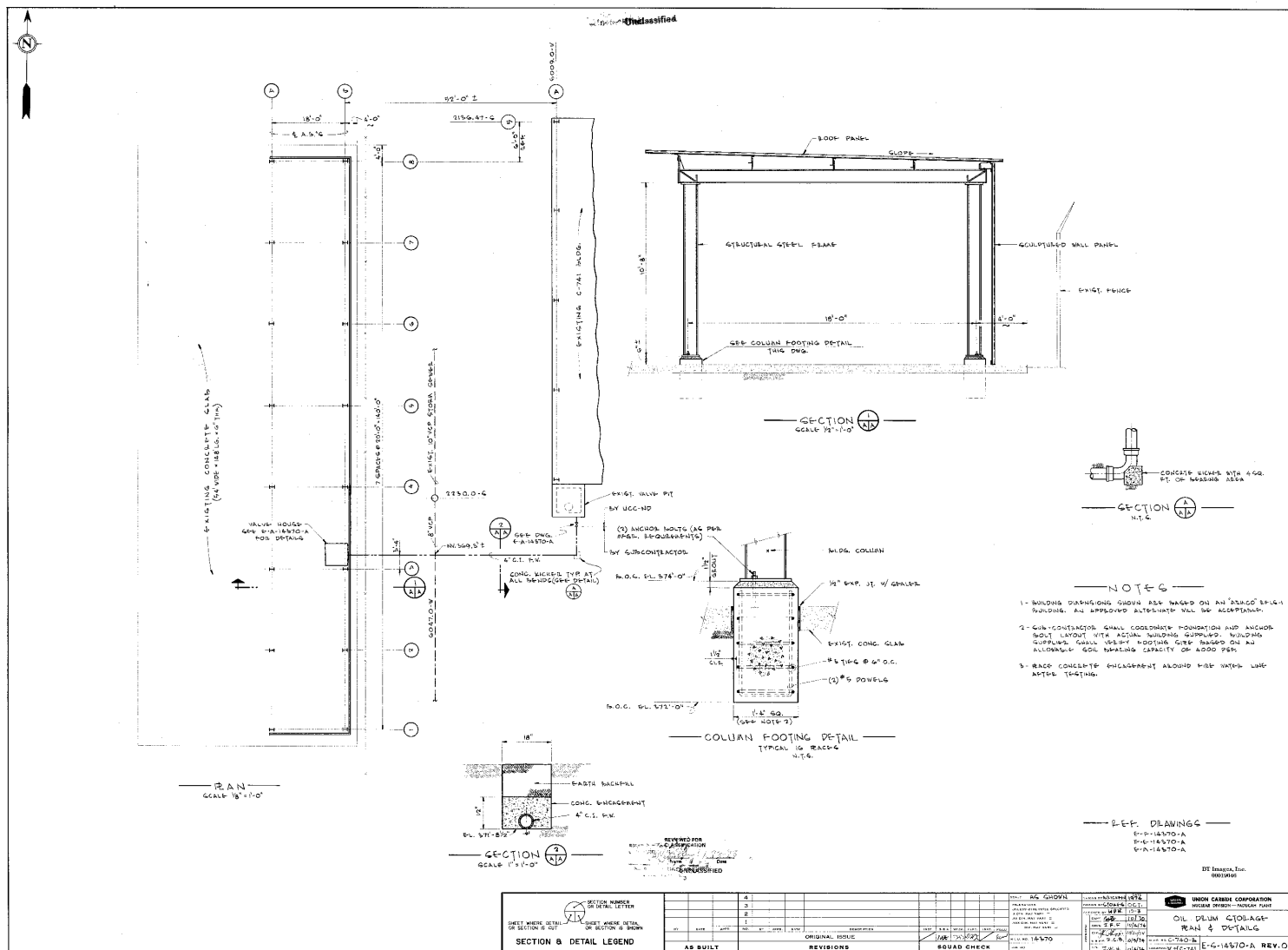
- As part of the demolition of the aboveground structure, the appropriate best management practices (BMPs) will be evaluated and implemented (as needed) to prevent/minimize the pooling and/or migration of storm water that may come into contact with any contamination that may exist on the pad/subsurface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

- Based on the nature of product stored during past operations and the staining and cracking of the concrete pad, it is recommended that the underlying slab and soils undergo further CERCLA evaluation as part of a future site evaluation conducted under Appendix 4 of the SMP.
 - ❑ Consideration will be given to coordinate the timing of the future C-740-B site evaluation to occur prior to removal of the C-740-B aboveground structure. The development of a schedule for future site evaluations, including C-740-B, will be addressed as part of the fiscal year 2022 SMP scoping.

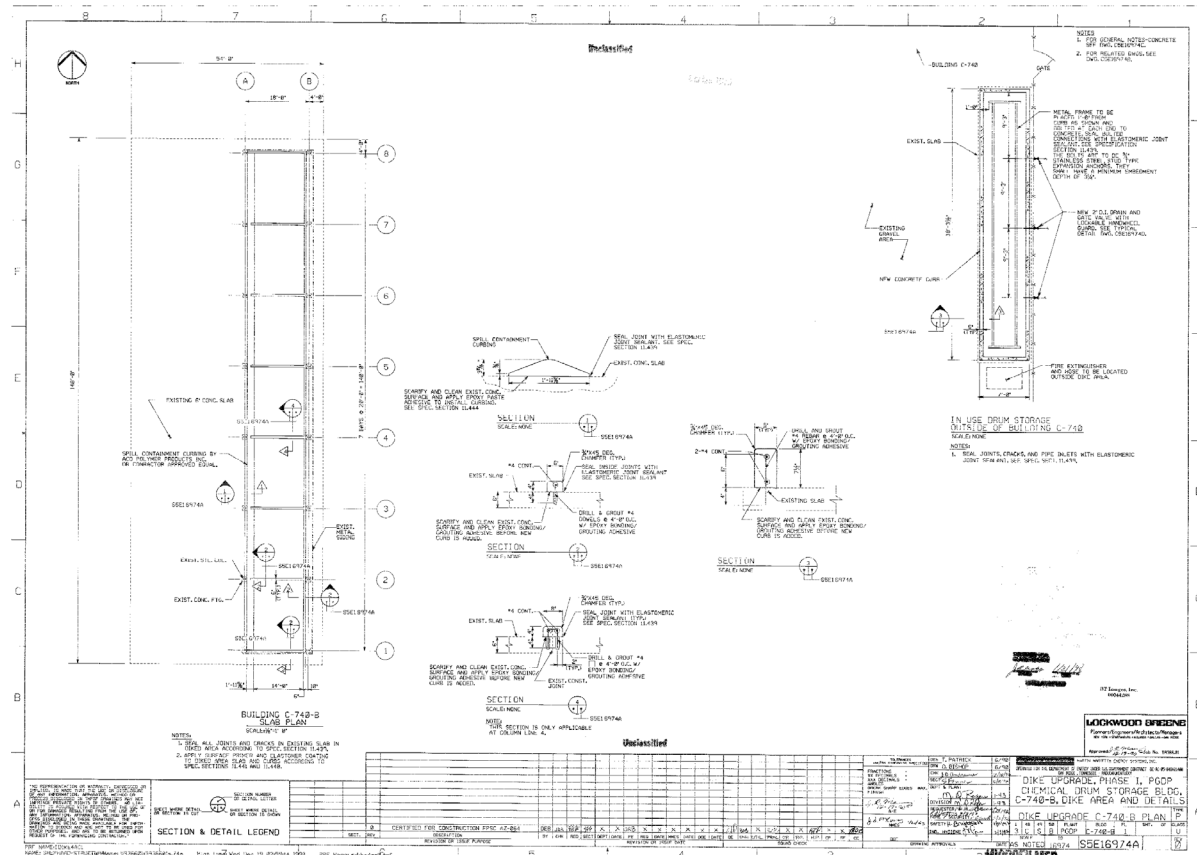
- Removal of the C-740-B facility will be documented in the appropriate annual SMP revision.

BACKUP INFORMATION

C-740-B Engineering Drawings

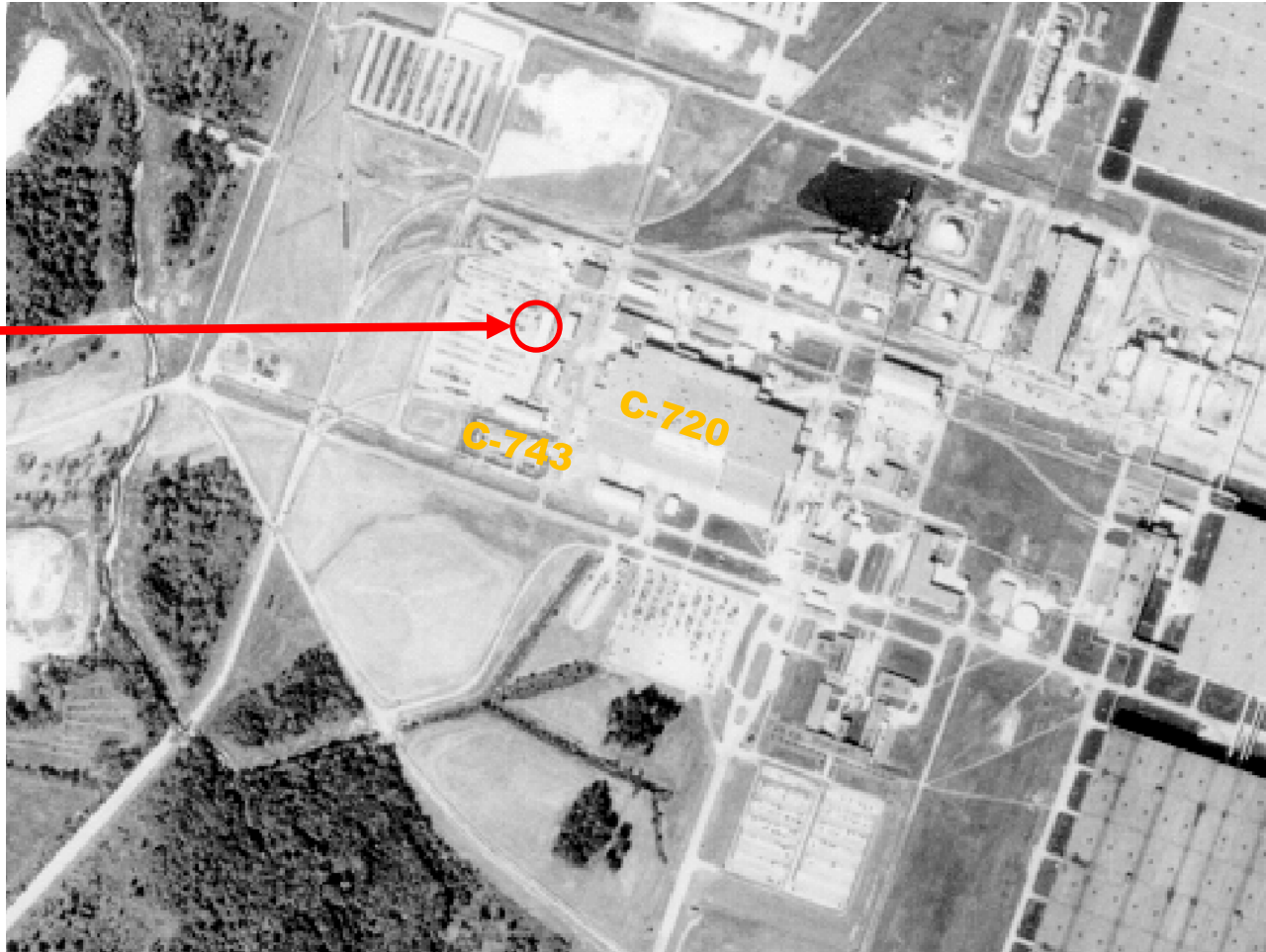


C-740-B Engineering Drawings



C-740-B Aerial Photograph

C-740-B



Modified from Aerial Photo: September 28, 1981

C-740-B 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 Communication:
 - Facility Manager (25 years plant expertise)
 - Compliance Subject Matter Expert (45 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
 - Final Environmental Impact Assessment of the Paducah Gaseous Diffusion Plant Site, Paducah, Kentucky, DOE/EA-0155, August 1982
 - Fluor Federal Services, Inc., Paducah Deactivation Project Comprehensive Environmental Compliance Due Diligence Review, CP5-ES-0101, October 2014