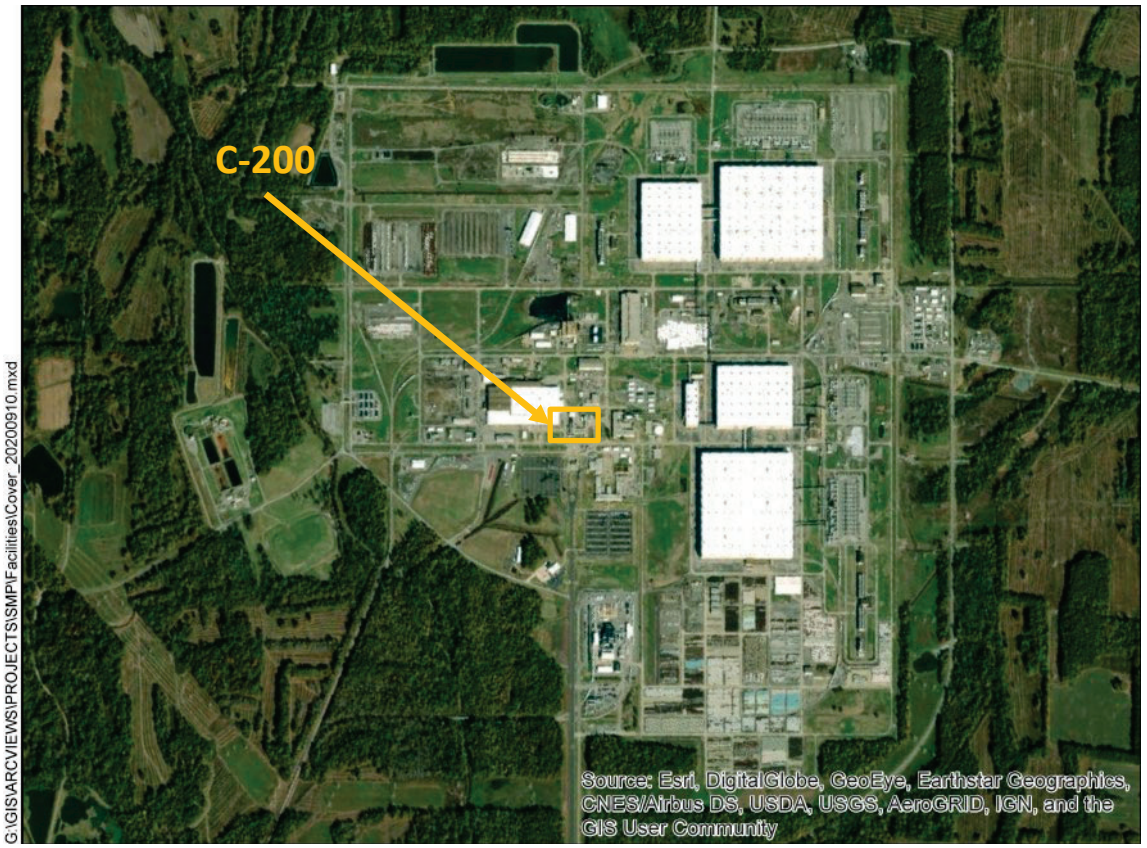
C-200 Guard and Fire Headquarters



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

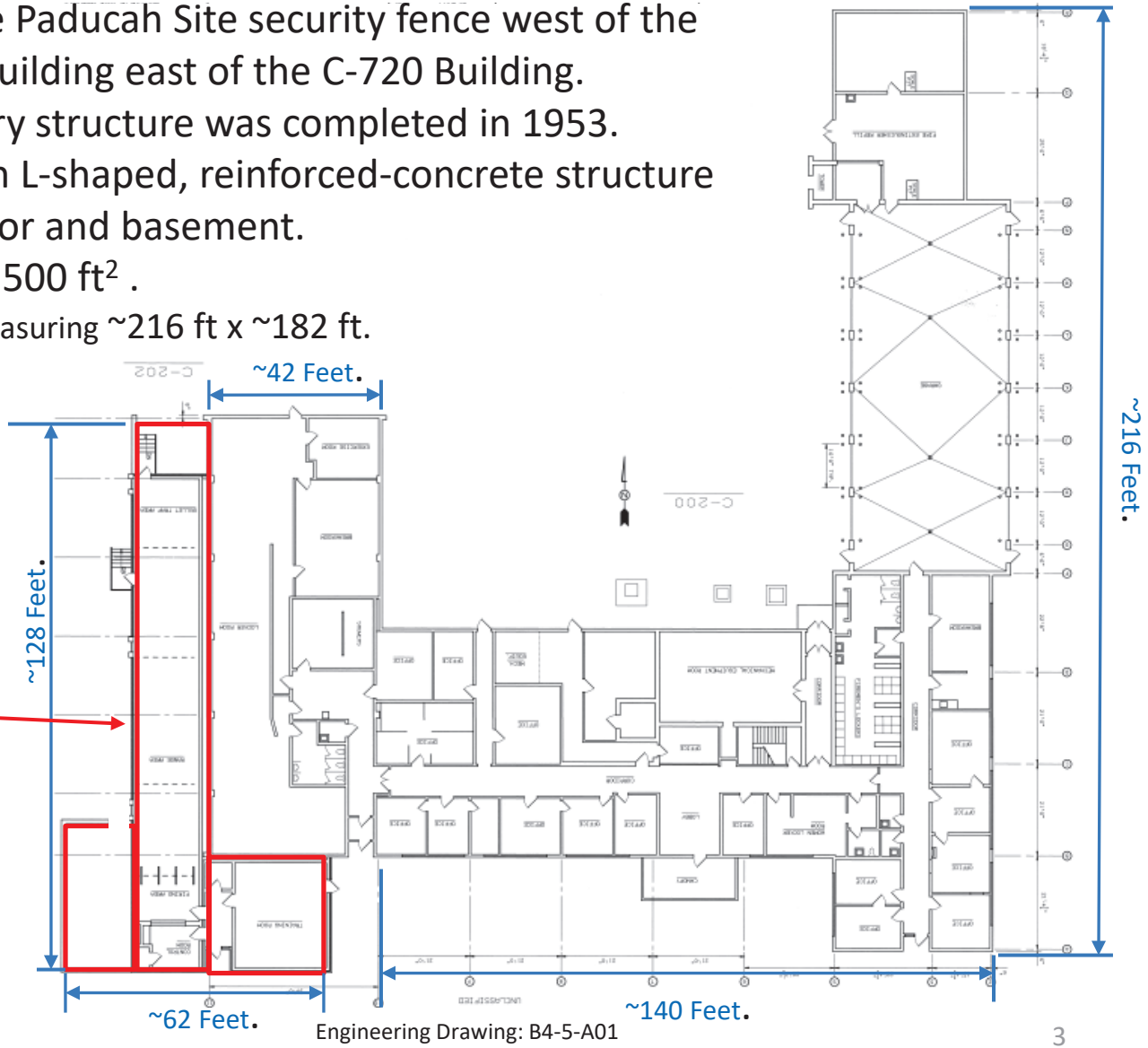
- The C-200 Guard and Fire Headquarters is a candidate for future demolition and disposal, contingent upon funding priorities.
- Listed in Appendix 6 of the Site Management Plan (SMP); requires consultation with EPA and Kentucky for CERCLA screening prior to demolition.

- 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, basement/sumps, and soils will be subject to a future CERCLA evaluation under Geographical Area (GA) 14.

C-200 Photo: 8/2020

Construction History

- C-200 is located within the Paducah Site security fence west of the C-710 Technical Services Building east of the C-720 Building.
- Construction of the primary structure was completed in 1953.
- Construction consists of an L-shaped, reinforced-concrete structure with two levels, a main floor and basement.
- C-200 is approximately 19,500 ft^2 .
  - Maximum dimensions measuring ~216 ft x ~182 ft.
- A garage bay measuring ~30 ft x ~20 ft was added to the northeast corner in ~ 1963 (not shown here on drawing B4-5-A01)
- The C-202 Guard Training Building was added to the west side of C-200 in 1982.
  - C-202 is not part of this consultation; non-CERCLA facility per Appendix 8 (SMP FY 2018-2019) screening.



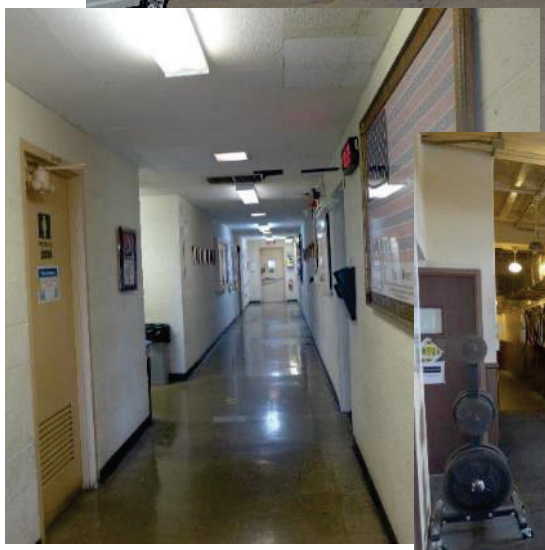
Engineering Drawing: B4-5-A01

Operational History

- C-200 has housed the facilities and equipment for security, guard, and fire protection personnel since initial construction.

- C-200 includes administrative offices, kitchen, breakroom, changing areas, training/workout area, storage and maintenance areas of emergency related equipment, and garage bays for emergency vehicles.

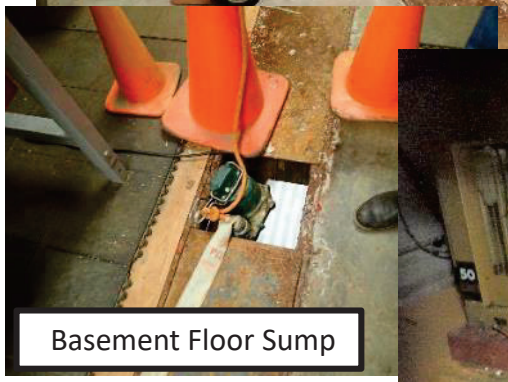
- C-200, along with C-300, is also a station point for the Federal Emergency Management Agency's National Area Warning System. Telephones along with other related equipment are located in the C-200 and C-300 buildings.



C-200 Photos: 8/2020

Operational History

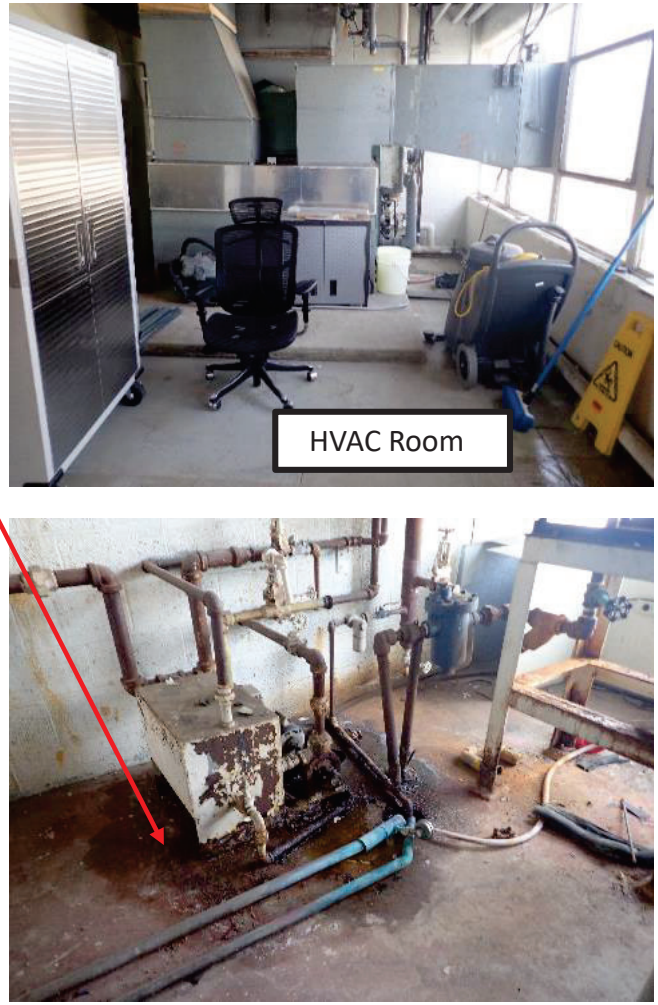
- The basement area has served as both a security office and central control room for emergency response.
- The facility contains a diesel fueled generator in the basement for emergency back-up power.
- USEC leased the facility in the early 1990s and continued use for its intended purpose until USEC ceased operations in 2014.
- The facility was transitioned from USEC to DOE in 2014.
- Continues to operate and serve as the Guard and Fire Headquarters.



C-200 Photos: 10/2020

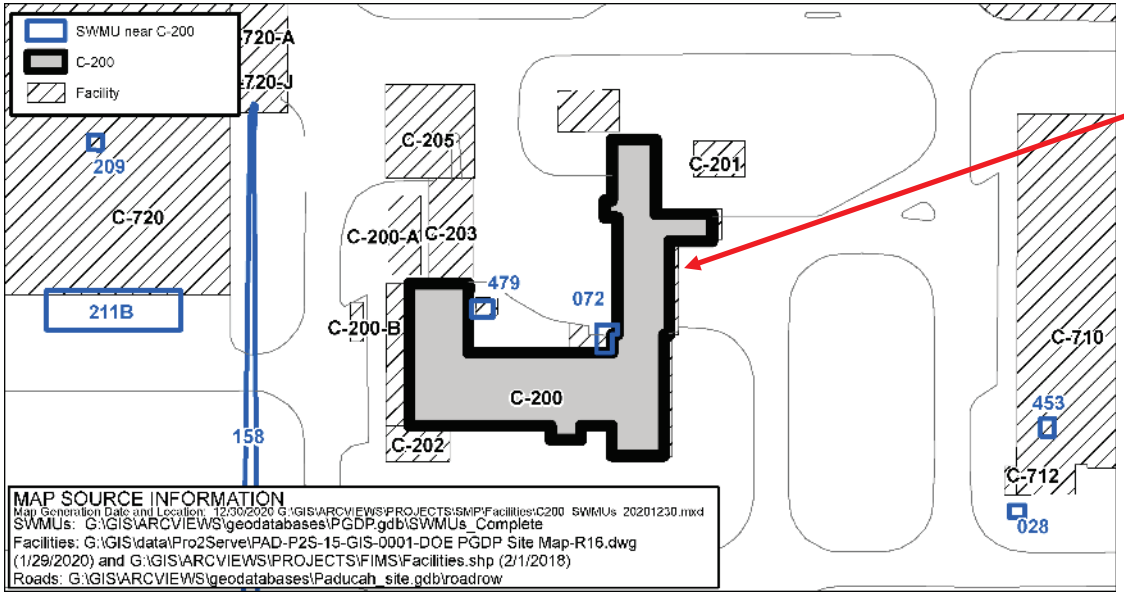
Current Status

- Walkdown inspection in October 2020 and employee interviews confirmed no unusual conditions.
  - ❑ Currently houses the site protective force and fire services; and associated equipment.
  - ❑ The basement is currently not being used to occupy personnel due to flooding during heavy rains.
  - ❑ Floor drains are present on the first floor.
  - ❑ Floor staining evident from past water leakage and drain overflow from the recirculating water system used to heat the facility in the winter.
  - ❑ Provides storage for armory but not ammunition.
  - ❑ Radiological posting (contamination area) is present for a small sink drain.
  - ❑ Small quantities of chemicals associated with weapons maintenance and fire services have been properly stored in accordance with chemical storage requirements.
    - Pumper truck carries five-5 gallon sealed containers of Aqueous Film-Forming Foam (AFFF).
    - No spills/releases are known to have occurred.



C-200 Facility Photos: 10/2020

Environmental Impacts
(Solid Waste Management Units)



- The C-200 Guard and Fire Headquarters is not designated as a SWMU/AOC.

SWMU No.	Facility Name	Current Status	NFA Approval By
28	C-712 Laboratory Equalization Tank slab and underlying soils	Soils and Slabs OU	
72	C-200 Underground Gasoline Tanks	NFA	EPA HSWA Class 1 Permit Mod 3/17/1993; KDWM (UST C-200A; UST Branch) 11/23/1999
158	Chilled-Water System Leak Site	Soils OU	
209	C-720 Compressor Shop Pit Sump slab and underlying soils	Soils and Slabs OU	
211B	C-720 TCE Spill Site Southeast	GWOU/ Soils and Slabs OU	
453	S-710-46	NFA	KDWM 9/11/2003
479	C-204 Disintegrator Building	NFA	KDWM 6/3/2002

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-200 has housed the facilities and equipment for security, guard, and fire protection personnel since initial construction.

  - Building materials used for construction could contain lead-based paints and asbestos materials.
    - Both can be effectively verified during a predemolition inspection and properly managed using standard demolition and waste management practices.

  - C-200 is identified in the TSCA Compliance Agreement as potentially having impregnated PCBs in ventilation duct gaskets.
    - Confirmed not to be leaking; gaskets can be evaluated for removal during deactivation prior to demolition.

  - No history or records of chemical use or spills that would pose environmental release threat.
    - A broken light ballast during USEC operations reportedly occurred and was cleaned up.

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, ventilation duct gaskets, and designated RMAs (to the extent practicable) prior to demolition.
  - Floor drains will be delineated and isolated prior to demolition.

- Pending ceasing of operation, deactivation, and availability of funding, proceeding with demolition and disposal of the C-200 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 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)).

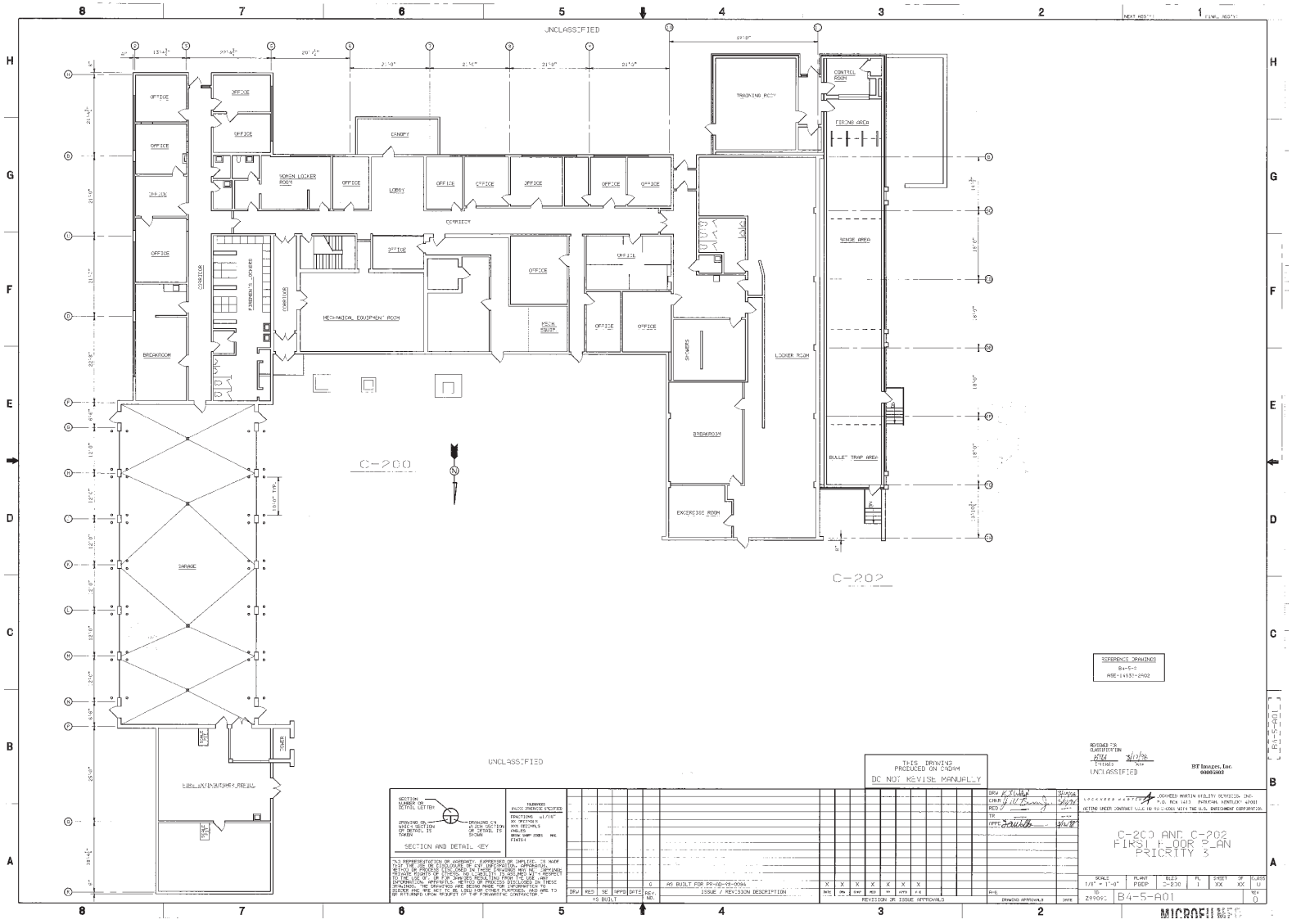
- Removal of the C-200 facility will be documented in the appropriate annual SMP revision.

- The future evaluation conducted for GA 14 will further evaluate the threat of release associated with the concrete slab, basement/sumps, and soils from the C-200 facility.

C-200 Guard and Fire Headquarters

BACKUP INFORMATION

C-200 Engineering Drawings



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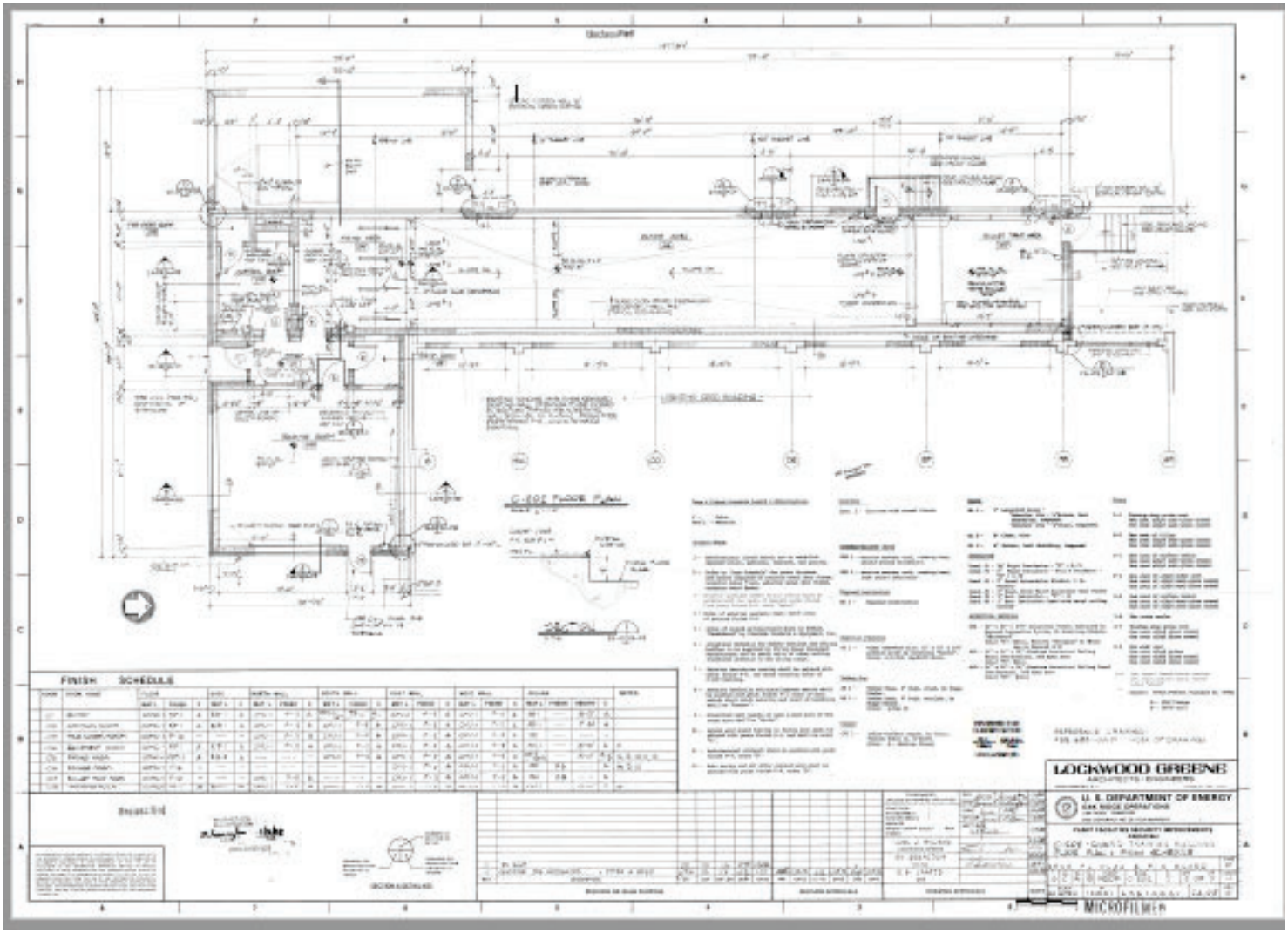
C-200 Engineering Drawings



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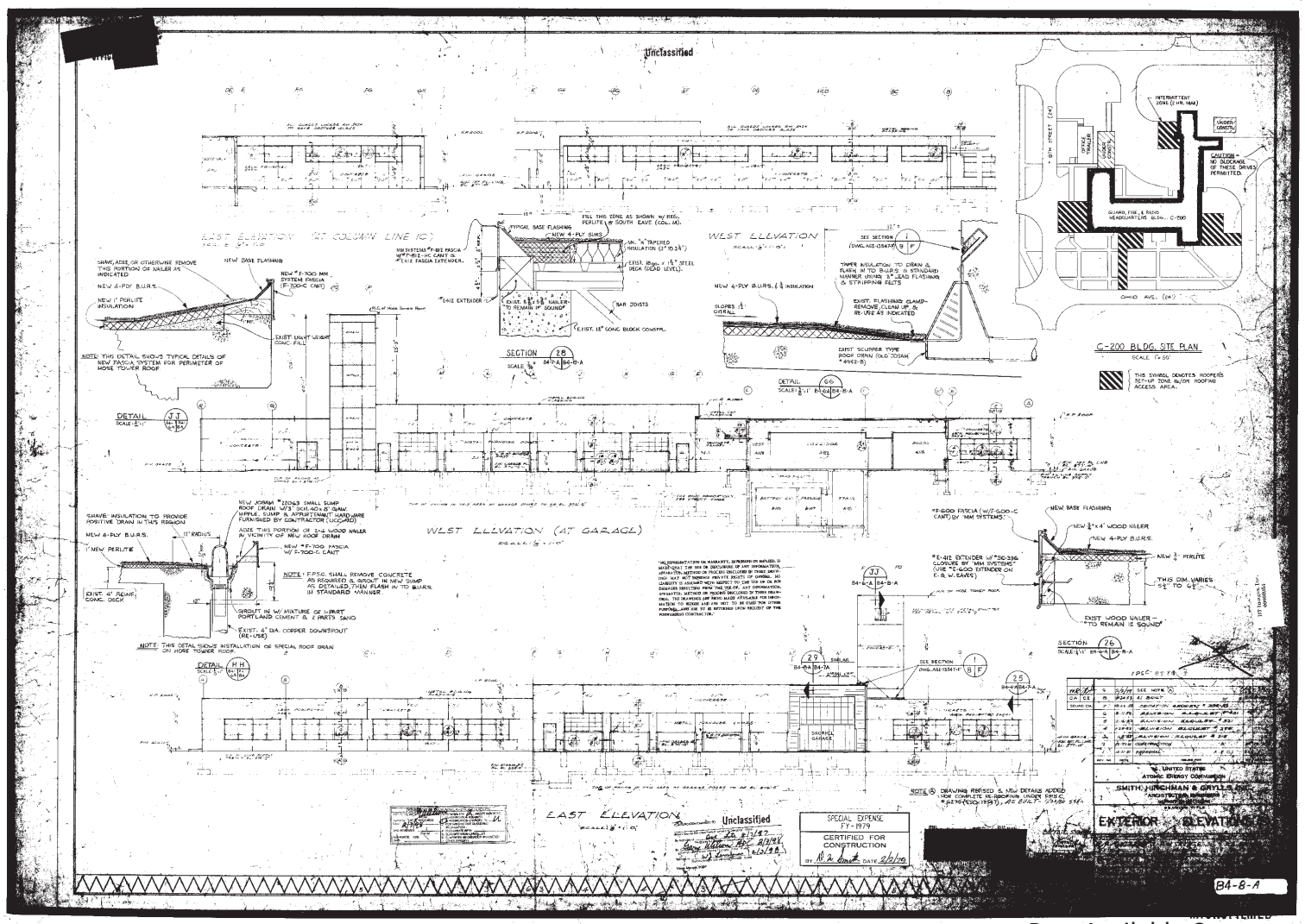
C-200 Engineering Drawings



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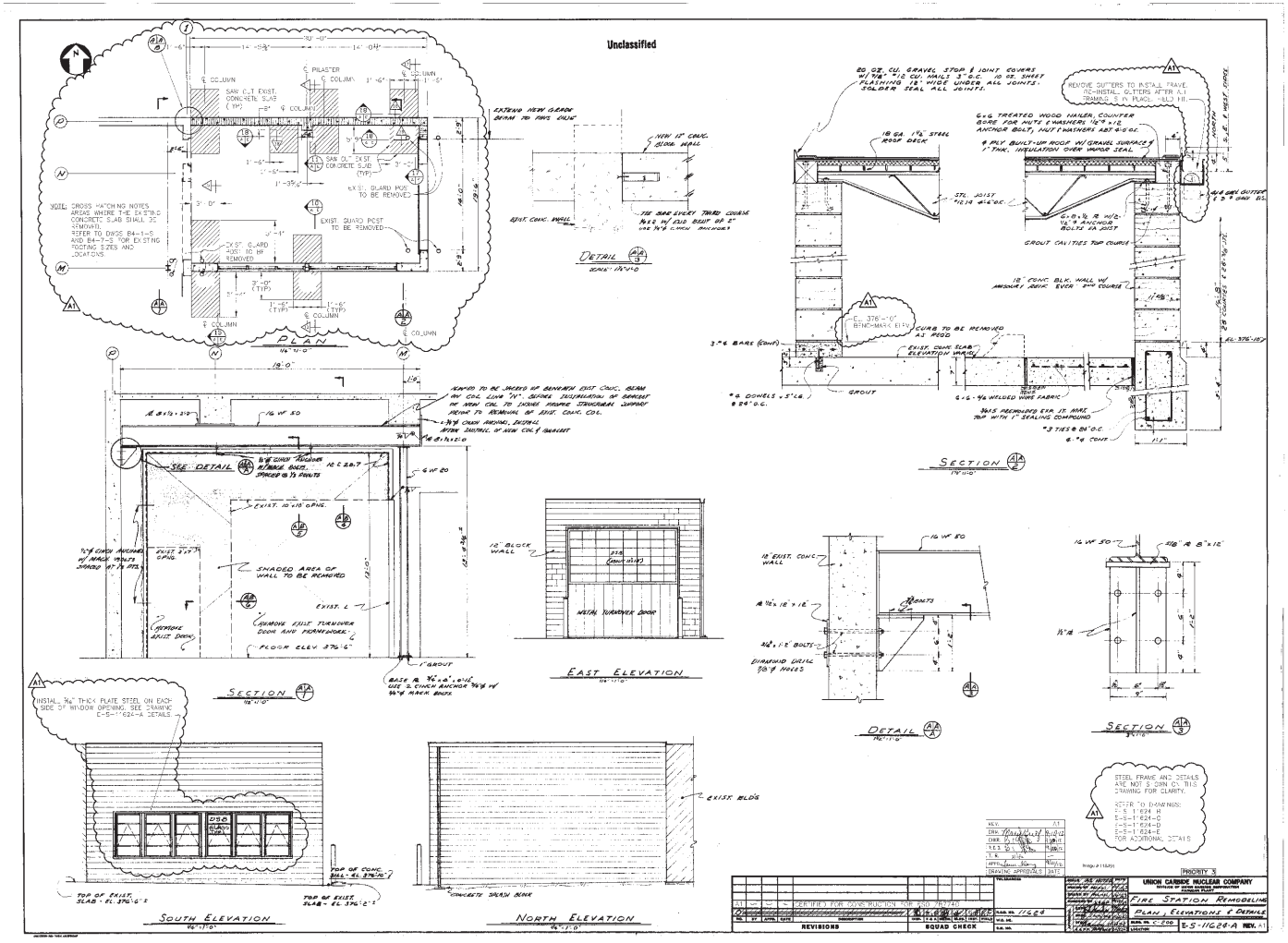
C-200 Engineering Drawings



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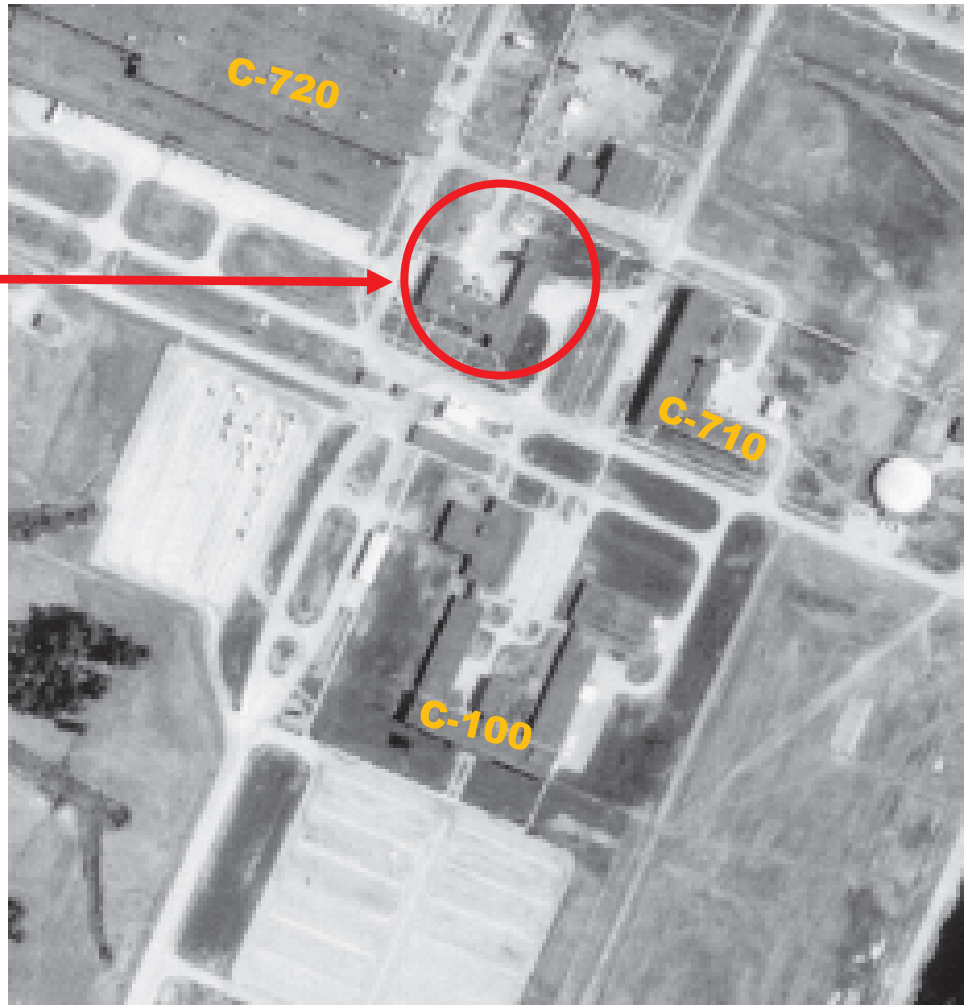
C-200 Aerial Photograph



Modified from Aerial Photo: July, 1971 (ADZ-4LL-53)

C-200 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 (3 years; previously 15 years working in facility)
- 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)