

**PRELIMINARY ASSESSMENT/SITE INSPECTION REPORT
AND SWMU ASSESSMENT REPORT**

UNIT NUMBER: 498

UNIT NAME: C-410/420 Complex – Sump at columns D&E –1&2.

DATE: 12/20/01

REGULATORY STATUS: Solid Waste Management Unit (SWMU)

LOCATION: Sump located in the C-410/420 Complex between columns D&E and 1 & 2.

APPROXIMATE DIMENSION: Approx. 1 ft diameter. Depth not determined.

FUNCTION: Served as a moisture collection system in the basement area of C-410.

BRIEF HISTORY: Sump served as a moisture collection system for the Fluorine Reactor Area. The sump located near a condensate flash tank, with collection trench running predominantly along north wall. No drainage system illustrated on building blueprints. Discharge operation is unknown.

OPERATIONAL STATUS: Inactive

DATES OPERATED: July 1953 to July 1964 and July 1968 to May 1977

SITE/PROCESS DESCRIPTION: Collection system for a liquid in the area. As there was no liquid associated with the process and the fluorine reaction area is below ground level, the sump probably collected water entering the pit. From the nature of the process, any liquid entering the sump was likely to be contaminated with uranium and traces of transuranics and technetium.

WASTE DESCRIPTION: Waste consisted of liquid entering the reactor pit area.

WASTE QUANTITY: NA

SUMMARY OF ENVIRONMENTAL SAMPLING DATA: 1994 samples for the contents of the sump indicated that the material contained detectable polychlorinated biphenyls and radioactive contamination (uranium at 111.69 pCi/mL assay). (*Martin Marietta Energy Systems Request for Site Surveys/characterizations and Miscellaneous Characterizations and Survey - MMES-94-44.*)

DESCRIPTION OF RELEASE AND MEDIA AFFECTED: No releases from this SWMU have been documented.

GROUNDWATER: There are no known groundwater impacts from this SWMU.

SURFACE WATER: There are no known surface water impacts from this SWMU.

SOIL: There are no documented releases of the pit discharging into subterranean drain system for C-340.

ECOLOGY AFFECTED (i.e., threatened/endangered species): No known impacts. No federal or state listed T&E plant or animal species have been identified. The federally endangered Indiana bat (*Myotis sodalis*) potentially occurs in the vicinity, but the C-410 complex does not provide a suitable habitat.

DOCUMENTATION OF NO RELEASE: NA

IMPACT ON OR BY OTHER SWMU/AOC: The following SWMUs are in the vicinity of the C-410/420 complex:

SWMU 11	SWMU 19	SWMU 20	SWMU 26
SWMU 40	SWMU 41	SWMU 47	SWMU 78
SWMU 169	SWMU 198	SWMU 203	

PRG COMPARISON: NA

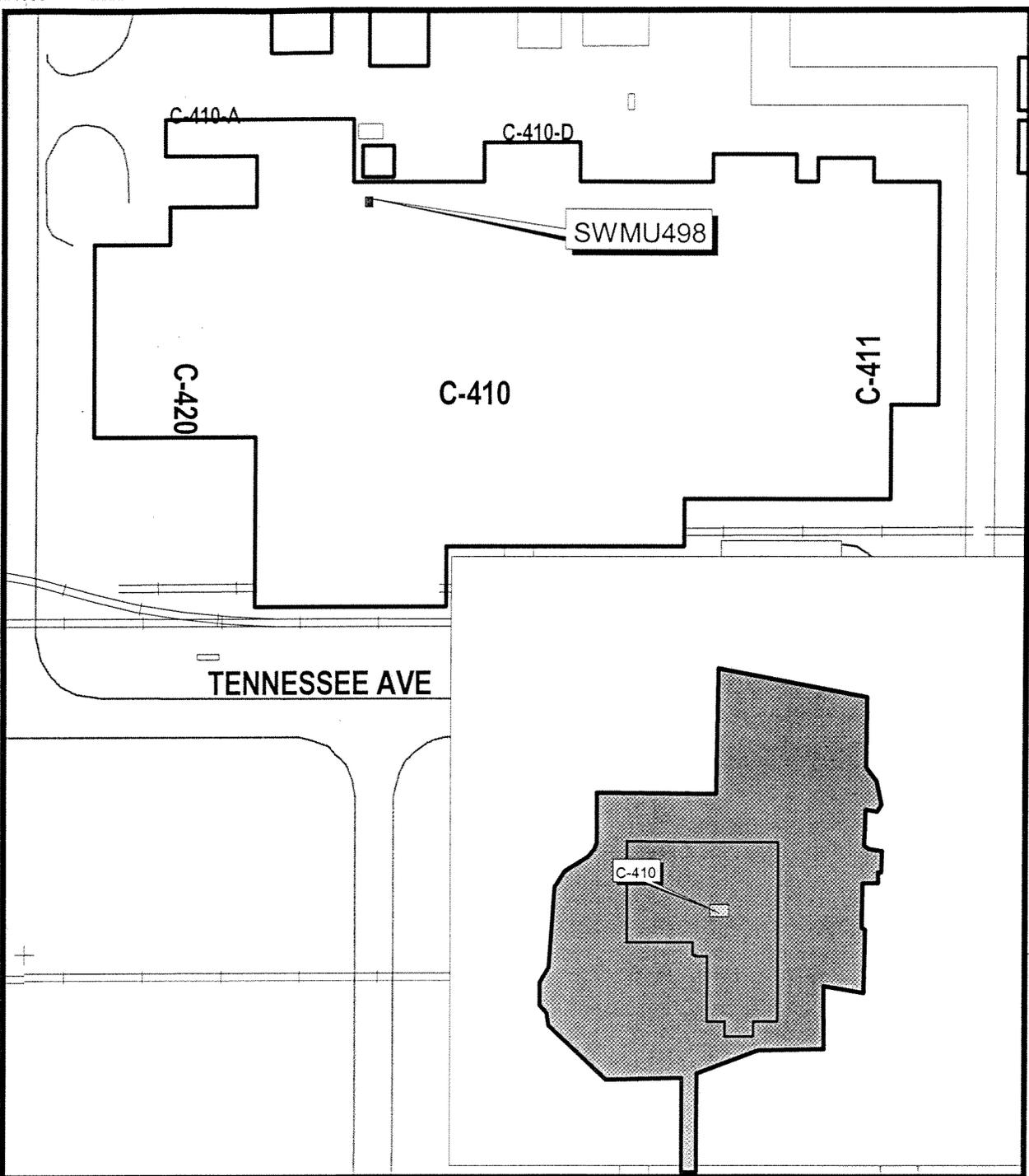
RFI NECESSARY: This area is associated with an inactive facility that is included in the decontamination and decommissioning (D&D) program. Site evaluation work is underway at this time, along with planning associated with the infrastructure D&D phase. The need for a Remedial Investigation/Feasibility Study will be evaluated as part of the facility structure D&D phase.

NOTE: Elements included in this outline shall be considered and incorporated, as appropriate, when developing the above referenced document.



SWMU 498

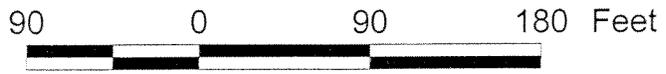
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U.S. DEPARTMENT OF ENERGY
DOE OAK RIDGE OPERATIONS
PADUCAH GASEOUS DIFFUSION PLANT

BECHTEL JACOBS BECHTEL JACOBS COMPANY LLC
MANAGED FOR THE US DEPARTMENT OF ENERGY UNDER
US GOVERNMENT CONTRACT DE-AC-05-98OR22700
Oak Ridge, Tennessee • Paducah, Kentucky • Portsmouth, Ohio

SWMU 498 at C410.

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