

HEMATITE FUEL FABRICATION FACILITY, SOUTH VAULT
(Building No. 252)
3300 State Road P
Festus
Jefferson County
Missouri

HAER MO-113-I
MO-113-I

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

HISTORIC AMERICAN ENGINEERING RECORD

HEMATITE FUEL FABRICATION FACILITY BUILDING 252 (South Vault)

HAER No. MO-113-I

- Location:** 3300 State Road P
Festus, Jefferson County, Missouri
- Present Owner:** Westinghouse Electric Company Limited Liability Corporation (LLC).
- Present Use:** Abandoned: in process of deactivation for removal of hazardous substances, and preparation for decommissioning and demolition.
- Significance:** The Hematite Fuel Fabrication Facility, also known as Hematite Former Fuel Cycle Facility and the Westinghouse Electric Company Hematite Facility, was constructed over a period of thirty-one years. The Facility was the first privately owned and operated uranium fuel production plant in the United States. The plant produced nuclear fuel for military as well as peacetime purposes throughout the “Cold War” era.
- The Hematite Fuel Fabrication Facility produced high-enriched nuclear fuel for the U.S. Navy nuclear submarine program and other reactor programs during the “Cold War” years of 1956 to 1974. After 1974 the Facility produce only commercial grade low enriched uranium for commercial nuclear power facilities.

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PART I. HISTORICAL INFORMATION

A. Physical History

1. **Date of Construction:** Circa 1963
2. **Architect:** The architect for this building is unknown.
3. **Owners, Occupants and Uses:** Owners include: Mallinckrodt Chemical Works, United Nuclear Corporation, Gulf United Nuclear Fuels Corporation, Combustion Engineering Corporation, Asa Brown Boveri, and Westinghouse Electric Company, LLC. Building 252 was used to store high-enriched nuclear material produced in the "Item Plant;" Building 252 was most recently used for the storage of chemicals and low-level radioactive waste.
4. **Builder-Contractor:** The contractor is unknown.
5. **Original Plans and Construction:** The location of the original plans is unknown.
6. **Alterations and Additions:** There have been no alterations or additions.

B. Historical Context

Building 252 was built in order to store high-enriched uranium that was used in the production of fuel for government projects. More recently Building 252 was used to store chemicals and low level radioactive waste.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. **Architectural Character:** Modern industrial
2. **Condition of Fabric:** Poor

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B. Description of Exterior

1. **Overall dimensions:** This building measures 39' x 48'. Building 252 measures 1,833 total square feet.
2. **Foundation:** Reinforced concrete
3. **Walls:** Concrete with high, brick parapet and terracotta cap
4. **Structural system, framing:** Concrete
5. **Porches:** There are no porches.
6. **Chimneys:** There are no chimneys.
7. **Openings:**
 - a. **Doorways and Doors:** There are three steel doors that enter/exit the building.
 - b. **Windows:** There are no windows.
8. **Roof:**
 - a. **Shape, covering:** Flat, concrete under metal sheathing
 - b. **Cornice, eaves:** There are no cornices or eaves.
 - c. **Dormers, cupolas, towers:** There are no dormers, cupolas, or towers.

C. Description of Interior

1. **Floor plans:** Building 252 is divided into six bays.
2. **Stairways:** There are no stairways.
3. **Flooring:** Concrete
4. **Wall and ceiling finish:** Concrete

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5. **Openings:** There are no openings.
6. **Decorative features:** High, brick parapet with terracotta cap
7. **Hardware:** Modern
8. **Mechanical equipment:**
 - a. **Heating, air conditioning, ventilation:** There is no heating, cooling or ventilation system.
 - b. **Lighting:** Fluorescent
 - c. **Plumbing:** There is no plumbing.

D. Site

1. **General setting and orientation:** The building is located on the south side of the Facility, at the back of the grounds. The front of the building faces north toward Building 251.
2. **Historic landscape design:** Vernacular landscape design.

PART III. SOURCES OF INFORMATION

A. Architectural drawings: Location of drawings for this building are unknown.

B. Bibliography:

Malich, Phillip J. *034-JE-02 Proposed Hematite Former Fuel Processing Facility*. Missouri Department of Natural Resources, State Historic Preservation Office, Jefferson City, Missouri, 2002.

Rode, James A. Deposition. May 9, 2002, in Westinghouse Electric Company LLC v US and etal. Case no.4:2003cv00861. Deposition held at the law offices of Babst and Calland, Pittsburgh, Pennsylvania.

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PART IV. PROJECT INFORMATION

This Historic American Engineering Record (HAER) documentation project was undertaken due to the owner's desire to decommission the Facility. The Facility will be disassembled (this is being done for safety purposes and the work is being done in accordance with federal law and regulations regarding hazardous waste clean-up and disposal). In 2003, Westinghouse Electric Company, LLC, hired SCI Engineering, Inc., of St. Charles, Missouri, to complete the HAER documentation of the Hematite Fuel Fabrication Facility. Dr. Steve Dasovich supervised the project and Historian Colleen Small-Vollman authored the HAER documentation report. The report was compiled by Susan Sheppard. Bruce Meyer and Todd Kapler completed the photographic documentation of the Facility, and Asa Westphal completed the floor plan drawings.