

HEMATITE FUEL FABRICATION FACILITY, WEST VAULT
(Building No. 235)
3300 State Road P
Festus
Jefferson County
Missouri

HAER MO-113-G
MO-113-G

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 235 (West Vault)

HAER No. MO-113-G

- 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 1960s
2. **Architect:** The architect for this building is unknown.
3. **Owners, Occupants and Uses:** Owners include: Malinckrodt Chemical, United Nuclear Corporation, Gulf United Nuclear Fuels Corporation, Combustion Engineering Group, Asa Brown Boveri, and Westinghouse Electric Company. Building 235 was used as a storage facility for products produced from uranium.
4. **Builder-Contractor:** The contractor is unknown.
5. **Original Plans and Construction:** Location of original plans is unknown.
6. **Alterations and Additions:** There have been no alterations of additions made to this building.

B. Historical Context

Building 235 was originally used to store high enrichment uranium. After the Facility ceased production of fuels made with high-enriched uranium, Building 235 was used to store depleted and natural uranium. Building 235 is attached to Building 230 but is a stand-alone building. Building 235 was constructed from concrete blocks, the interior has bays which are separated with concrete shield walls.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. **Architectural character:** Modern industrial
2. **Condition of fabric:** Fair

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B. Description of Exterior

1. **Overall dimensions:** This building measures 18' x 35'. Building 235 measures 630 total square feet.
2. **Foundation:** Cement block
3. **Walls:** Concrete block
4. **Structural system, framing:** Concrete block
5. **Porches:** There are no porches.
6. **Chimneys:** There are no chimneys.
7. **Openings:**
 - a. **Doorways and Doors:** There is one double door entering and exiting Building 235.
 - b. **Windows:** There are no windows.
8. **Roof:**
 - a. **Shape, covering:** Flat, concrete
 - 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:** Open floor plan
2. **Stairways:** There are no stairs.
3. **Flooring:** Reinforced concrete
4. **Wall and ceiling finish:** Concrete block

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5. **Openings:** There are no openings.
6. **Decorative features:** There are no decorative features.
7. **Hardware:** There is no hardware.
8. **Mechanical equipment:**
 - a. **Heating, air conditioning, ventilation:** There are no systems for heating cooling or ventilation.
 - b. **Lighting:** Modern fluorescent
 - c. **Plumbing:** There is no plumbing.

D. Site

1. **General setting and orientation:** Building 235 is adjacent to Building 230 on the west, the front of the vault faces Building 240 on the east.
2. **Historic landscape design:** Vernacular landscape

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. November 13, 2001, 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.