

Category # 2

REPOSITORY _____

COLLECTION EM files - Job # 890526

BOX NO. 5879

TRIP REPORT

FOLDER 2.25.1 Missouri / Weldon Spr.
Reports 1981-1983

DATE OF VISIT: 2 - 5 May 1988

PLACE VISITED: Weldon Spring Site
Weldon Spring, MO

PERSONS CONTACTED: R. Nelson, DOE Project Manager
S. McCracken, Deputy Project Manager
K. Lawver, DOE Environmental Engineer
R. Medora, Jacobs Engineering

PURPOSE OF THE VISIT: To review Mallinckrodt records and other records pertaining to the operation of the AEC Weldon Spring Plant from the mid-1950's through the mid-1960's that remain on the plant site; and to locate formerly used sites in Madison and Granite City, Illinois.

BACKGROUND: Except for records pertaining to the administration of prime contracts, prior attempts to locate records generated during the operation of the Mallinckrodt Chemical Works facilities in St. Louis and subsequent operations at the AEC feed material production facility at Weldon Spring were, for the most part, unsuccessful. In early April 1988, the DOE was provided information concerning two commercial firms in the St. Louis area that had not been previously identified which apparently performed work for the AEC in the late 1950's that involved the processing or handling of radioactive materials. Also in April, DOE headquarters was provided copies of a "Catalogue of On-Site Files" prepared by a Department of the Army contractor in 1977 following an inventory of files that were left in the Weldon Spring plant facilities by the AEC and Mallinckrodt, Inc., the plant contractor operator.

A review of the "Catalogue of On-Site Files" indicated that records left at the plant site might contain information pertaining to the work done by the firms in Madison and Granite City, Illinois, and other commercial firms that might have done similar work.

DISCUSSION: Following a brief meeting with the DOE Project Manager and Deputy Project Manager on Monday afternoon to explain the purpose of the visit, I was escorted by Mr. Lawver to the area where the records had been assembled, was briefed on procedures required for access to controlled areas, and spent the remainder of the day conducting a general assessment of the condition and types of records that were available for review. A brief summary of the findings based on the results of the records review over the next three days are as follows.

1. The types of records assembled by the site contractor from the various buildings on the site were identified in five general categories.

- o Records pertaining to plant operations at the site.

- o A relatively complete file of purchase orders with vendors and suppliers supporting plant construction and feed material production operations.
- o A large volume of vendor data containing commercial catalogues, drawings and technical notes pertaining primarily to plant construction and operations.
- o As-built drawings of site plant facilities.
- o A relatively small volume of records left at the site by representatives of the U.S. Army following their tenure after the AEC operation was closed down. This category also includes some site monitoring records apparently left by Bechtel, a DOE contractor.

2. A significant portion of the records identified in the "Catalogue of On-Site Files" were not found. It is apparent that the records were inventoried in place and were moved at least once prior to their assembly in the current location in Building 410. It is possible that some of the records may have been removed from the site since the inventory in 1977. During recent efforts to locate and move the records to Building 410, some were left in place because they were exposed to the elements due to failed roofs over an extended period of time and the cabinets and records were deteriorate to the extent that cabinet drawers were rusted shut and records were wet, decayed and illegible. During a visit to Building 438, a former administrative building, eleven drawers of records that were not included in the Army inventory were found. These records were moved to Building 410, were reviewed and found to contain documents pertaining to administration and plant support.

3. Efforts were directed primarily to review of the purchase order files to identify vendors and suppliers of services that might have been involved in the processing or handling of radioactive materials during the 1950's through the early 1960's. Files containing purchase orders between Mallinckrodt's Uranium Division and DOW Chemical Company and General Steel Castings Corporation were found and copied. These files contain purchase orders for the period 1958 through 1964 that support, to some extent, the information provided to DOE by the St. Louis Post-Dispatch reporter concerning work done for the AEC by these firms.

The purchase orders with DOW Chemical Company were primarily for chemicals (Sodium Carbonate, Trichlorethylene, etc.), welding wire and rod, and related metal products. Purchase Order No. U-63862-M, dated March 9, 1960, was for straightening Mallinckrodt supplied uranium rods. Neither the quantity of uranium metal, nor the time required to perform the task are indicated. However, the purchase order does indicate that two campaigns, completed on December 21, 1959 and January 25, 1960, were conducted. This was the only purchase order in the file covering the period July 1957 through December 1965 that indicates this firm's involvement with the processing of radioactive material.

The purchase orders with General Steel Castings at 1417 State Street in Granite City, Illinois, for the period February 1958 through June 1966 were issued to cover services, on an as-required basis, involving the x-ray of material delivered to their plant by Mallinckrodt personnel. Although not specifically indicated, it is

assumed that the materials involved were uranium metal ingots and/or dingots and the services rendered were in support of metallurgical studies of uranium metal produced by Mallinckrodt.

The purchase orders indicate that the name of the firm was changed between June 1960 and July 1961 from General Steel Castings Corporation to General Steel Industries, Inc., at the same address.

It should be noted that the purchase orders involving the handling or processing of uranium metal by both DOW Chemical and General Steel required delivery by Mallinckrodt personnel, not a commercial trucking/delivery firm, as was indicated in the information provided DOE by the St. Louis Post-Dispatch reporter.

4. Although not all of the purchase order files were reviewed in detail, the title of each folder (name of the company) was examined for a match with firms and locations currently identified in the FUSRAP site list. The folders identified in this process were examined in detail. The contents of folders identified as chemical suppliers, or suppliers of metal fabrication or transportation services were also thoroughly examined. DOW Chemical and General Steel were the only firms identified that processed or handled radioactive material.

5. Routine correspondence and other communications between Mallinckrodt, the AEC and other firms/agencies involved in uranium metal production and fabrication programs of the period, typically found in groups of records previously reviewed, were not found in the records reviewed at the Weldon Spring site. Only a few records pertaining to the Mallinckrodt operations in downtown St. Louis during the mid-1950's were found in this group of records.

6. The group of records made available to personnel of the St. Louis Post-Dispatch newspaper were also reviewed. With few exceptions, these records were dated in the 1970's and 1980's, apparently shipped to the site from the Oak Ridge Operations Office. Most appeared to be record file copies and pertained primarily to environmental monitoring at the site and the current DOE program to clean up the site. It is my understanding that the site records currently located in Building 410 were not made available to the newspaper personnel.

7. Successful completion of the records review during the time allocated was due in large part to the cooperation and assistance provided by the DOE Project Manager's staff and Mr. R. Medora of the Site Contractor staff.

8. Prior to departure from the St. Louis area, a trip was made to Madison and Granite City, Illinois, to locate the former DOW Chemical and General Steel plant sites. The former DOW plant is now occupied by Spectrulite Consortium Inc. (SCI). The plant site is located at College and Weaver Streets in Madison, Illinois. The former General Steel Casting Corporation (apparently renamed General Steel Industries, Inc.) site at 1417 State Street in Granite City is now the South Plant Facility of Granite City Steel Division, Granite City Steel Company.

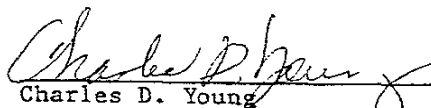
... CONCLUSIONS: Except for the files pertaining to purchases of materials and services from DOW Chemical and General Steel, the records reviewed are considered of little

value to FUSRAP site investigation activities. However, the absence of routine correspondence between Mallinckrodt, the AEC and other firms or agencies involved in similar activities indicate that such files were removed from the site when AEC operations were terminated in the late 1960's.

Purchase orders with the former General Steel Castings Corporation and DOW Chemical Company obtained during the visit confirm, to some extent, the information provided to DOE by the St. Louis Post-Dispatch reporter.

The former General Steel Castings Corporation did perform services using government owned Betatron equipment to x-ray uranium, probably in ingot or dingot configuration. The service was apparently provided over a period of several years (early 1958 through the summer of 1965).

Uranium rods were straightened at the former DOW Chemical Company Plant in Madison, Illinois, in December 1959 and January 1960. DOW did participate in a cooperative program to establish operating conditions for the Weldon Spring metal plant. However, documents to support the assertion that uranium dingots were extruded into smaller diameter rod at the former DOW plant were not found.


Charles D. Young
Office of Technical Services