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THE AEROSPACE CORPORATION



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18 March 1986

Mr. Edward DeLaney, NE-23
Division of Facility & Site
Decommissioning Projects
U.S. Department of Energy
Germantown, Maryland 20545

Dear Mr. DeLaney:

ELIMINATION FROM FUSRAP
THE FORMER SUPERIOR STEEL CORPORATION SITE

The attached package was prepared to complete those tasks associated with the elimination of the Superior Steel Corporation Site from FUSRAP as indicated in Mr. Whitman's (DOE) letter to Aerospace dated 28 October 1985. This package contains materials necessary for owner, state and EPA notification (Enclosure 1); a site summary (Enclosure 2); and a copy of the Authority Review for the site, complete with referenced documentation (Enclosure 3).

I would be happy to respond to any questions or comments you might have regarding this action.

Sincerely,

Charles D. Young
Environmental Controls and
Analysis Directorate
Government Support Division

CDY/smb

Attachment

cc: R. Lewis (w/o)
File

bcc: R. Johnson (w/o)
S. Jones
F. Newman (w/o)
A. Wallo

SUPERIOR STEEL CORPORATION
Carnegie, Pennsylvania

Site Function

During early 1952, with the rapidly increasing interest and demand for flat, plate-type reactor fuel elements, it was determined that the Superior Steel Corporation was one of only a few organizations in the United States with technical background, experience, and commercial success in the rolling and cladding of metal strip and plate. Superior Steel was one of two contractors successful in their bid to perform work in this area. Work was initiated under Letter Contract No. AT(30-1)-1412 in June 1952. Work under this AEC contract was developmental in nature and was apparently limited to the production of flat plates of uranium metal in support of the Savannah River Operations Office fuel element development program. Work under the contract and its seven modifications continued through September 1957. Copies of the contract have since been destroyed. With the exception of information contained in general correspondence and one report of a 1955 health and safety inspection of that portion of the Superior Steel plant where AEC work was done, little is known of the specifics of work performed and the contractual relationship between Superior Steel and the AEC. However, a preponderance of the documents that have been reviewed indicate that ton quantities of uranium metal were processed at the Superior Steel facilities, the nature of the work was developmental and operations at the plant were conducted on an as required basis--for short periods of time--possibly only on weekends. The operations included a combination of processes: salt bathing, rolling, brushing, shaping, cutting, stamping and coiling, depending on the desired final product.

Enclosure 2

Site Description

The site of the former Superior Steel Corporation facility is located southwest of Pittsburgh in Carnegie, Pennsylvania. The site is bounded on the north, west, and south by Chartiers Creek and on the east by Superior Street (Figure 1). That portion of the facility where work under the AEC contract was performed is a large steel structure, divided into three areas (approximately 44,000 square feet) that included the mill, the rolling operation, and the motor room (Figure 2). In July 1980, when the preliminary site survey sponsored by the DOE was conducted, most of the original equipment had been removed and the building was being used to house a facility for rebuilding coke oven doors. Subfloor pits (approximately 8 feet deep) over which the former mill, brushing station, finishing stands and shear were originally located were being filled with rubble.

Owner History

During the period when work was performed under AEC contract (1952-1957), the site was owned and operated by the Superior Steel Corporation. The building used to perform work under this contract is currently owned by Lange Machinery of Coraopolis, Pennsylvania, and occupied by Lange Machine Company, Inc.

Radiological History and Status

Results of the preliminary site survey indicate that residual uranium contamination from former mill operations exist in several areas of the former mill room, the rolling area and in a storage shed adjacent to the rolling area. The extent of the contamination in these areas, particularly in the subfloor pits, could not be adequately determined due to conditions in the building at the time the survey was conducted. However, gamma-ray exposure rates up to 50 microR/h (eight times the natural background level) were measured over

a floor pit in the former mill area. In the rolling area gamma-ray exposure rates of approximately 500 microR/h were measured at the bottom of one of the subfloor pits. The uranium content of a sample taken at the bottom of this pit was 5800 pCi/g U-238 (1.4 percent by weight). No other radionuclides were present in sufficient quantities to be detected. Gamma radiation levels up to 75 microR/h were measured in another pit in this area. Gamma radiation levels up to 400 microR/h were measured on the surface of the wood floor in the storage shed. There was no evidence of radioactive contamination in the former motor room. Although radioactive contamination above DOE Guidelines* for unrestricted use is present, average radiation exposures to individuals working in the buildings, under use conditions at the time of the survey, were below current Federal guidelines for continuous exposure; provided contact with mill residues in the pits and time spent in the storage shed are minimized.

In July 1981, copies of the preliminary survey report were provided to the Pennsylvania Department of Environmental Resources and the site owner and plans were initiated to schedule a more comprehensive survey of the site. However, in late 1981, DOE was advised that all floor pits had been closed at floor level by a six inch layer of concrete and the floor of the storage shed had been replaced by a four inch layer of concrete. As a result, no additional survey of the site was conducted.

In October 1985, after reviewing historical documentation pertaining to the work performed under AEC contract, DOE determined that it does not have authority under the Atomic Energy Act of 1954, as amended, to conduct remedial action at the former Superior Steel

*U.S. Department of Energy Guidelines for Residual Radioactivity at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites, February 1985.

site. The nature of the work performed by Superior Steel, limited AEC control over contractor operations, and the absence of indications of indemnification within the terms of the contract were the primary basis for this decision. Information supporting this decision is contained in an Authority Review completed in September 1985. In accordance with DOE policy, the Environmental Protection Agency and the State of Pennsylvania were notified of this decision so that they might take appropriate action.

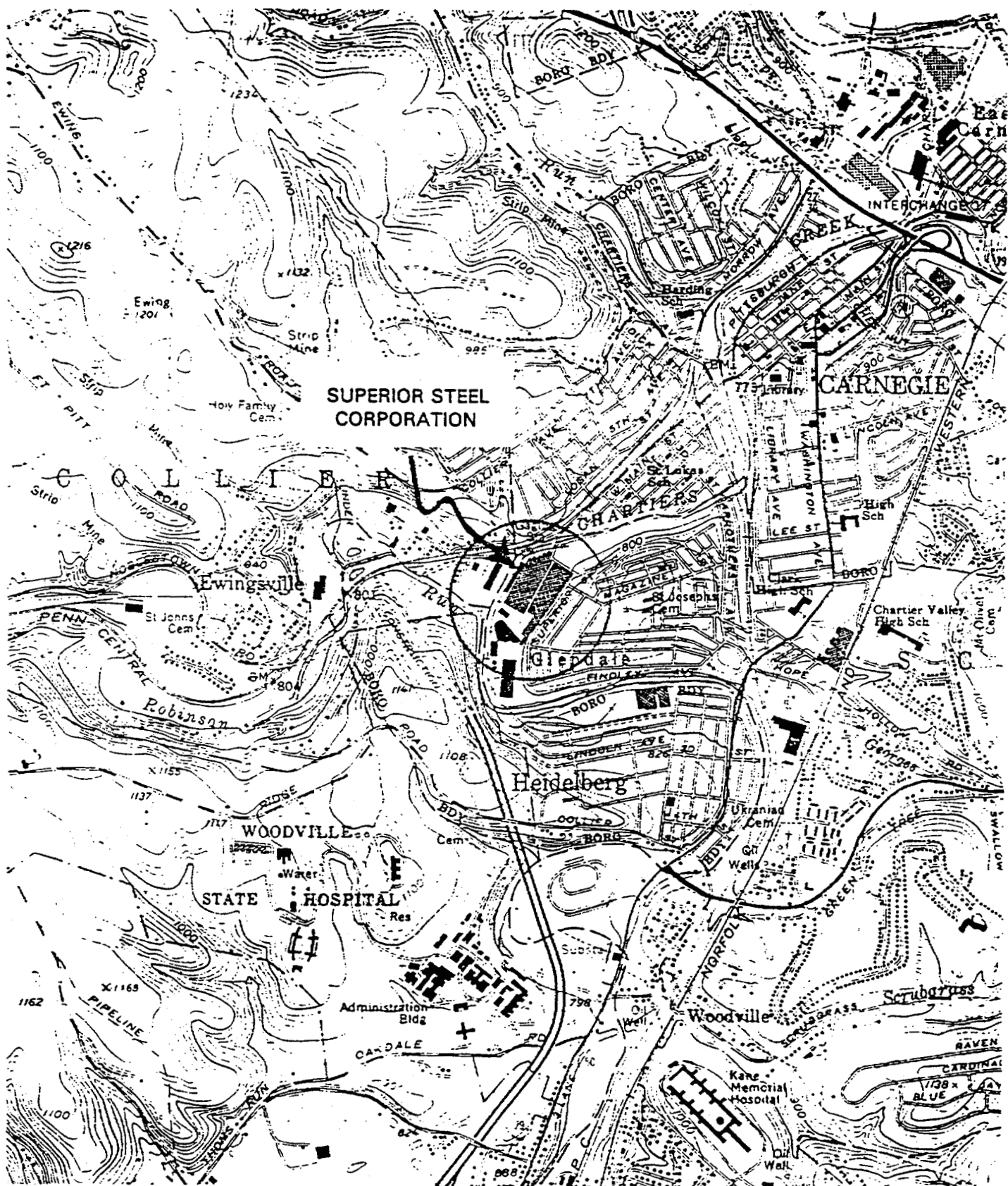
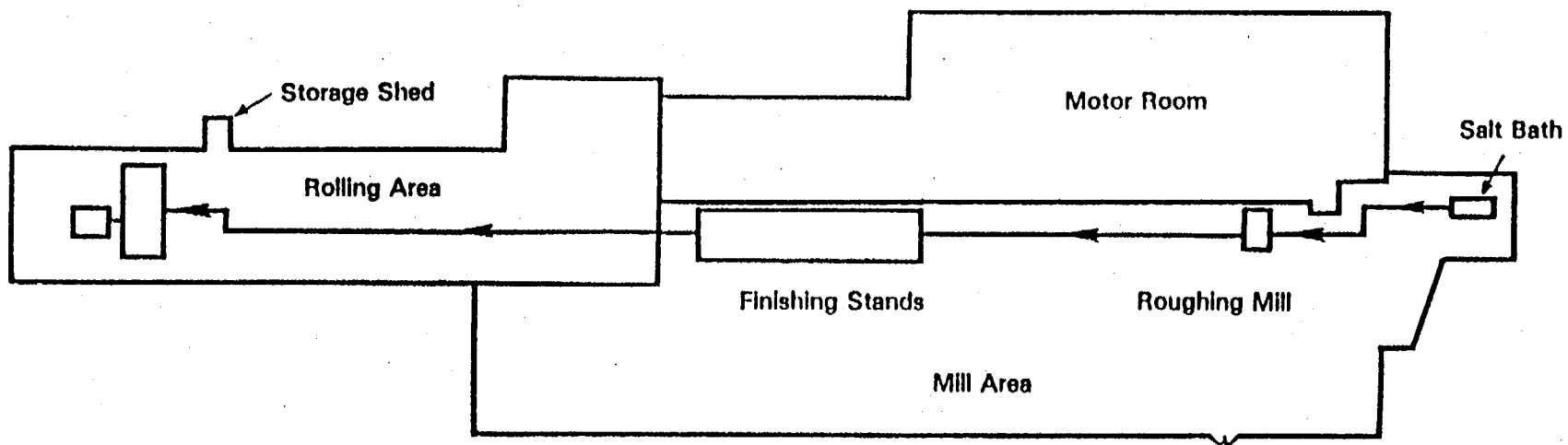


Figure 1. Location of the Former Superior Steel Corporation in Carnegie, Pennsylvania



**Figure 2. Layout of Former Superior Steel Facility,
Approximate Locations of Process Line Machinery**

