

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

ELIMINATION REPORT

FOR

AL-TECH SPECIALTY STEEL CORPORATION
(THE FORMER ALLEGHENY-LUDLUM STEEL CORPORATION)
WATERVLIET, NEW YORK, AND DUNKIRK, NEW YORK

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Department of Energy
Office of Nuclear Energy
Office of Remedial Action and Waste Technology
Division of Facility and Site Decommissioning Projects

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INTRODUCTION

The Department of Energy (DOE), Office of Nuclear Energy, Office of Remedial Action and Waste Technology, Division of Facility and Site Decommissioning Projects (and/or predecessor agencies, offices, and divisions), has reviewed the past activities of the Atomic Energy Commission (AEC) at the former Allegheny-Ludlum Steel Corporation site (now Al-Tech Specialty Steel Corporation), Watervliet, New York, and completed a radiological screening survey at this facility and at the Al-Tech Specialty Steel Corporation plant in Dunkirk, New York, where some equipment previously used in the AEC operations is presently located. DOE has determined, based on a review of these surveys, that the conditions at both the Watervliet and Dunkirk sites are in compliance with current DOE radiological guidelines and standards and that no potential for radiological exposure exists beyond that resulting from natural background. Therefore, the Watervliet and Dunkirk sites require no remedial action and are will not be included in the Formerly Utilized Sites Remedial Action Program.

This report presents information supporting the determination that the radiological conditions at the former Allegheny-Ludlum Steel Corporation sites are in compliance with current DOE radiological guidelines and standards¹ and provides assurance that use of these facilities will not result in any measurable radiological hazard to site occupants or the general public.

¹ U.S. Department of Energy Guidelines for Residual Radioactivity at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites (Rev. 1, July 1985).

This elimination report will be archived by DOE through the Assistant Secretary for Management and Administration. A copy of this package will be available for public review, between 8:00 a.m. and 4:00 p.m., Monday through Friday (except Federal holidays), at the DOE Public Document Room located in Room 1E-190 of the Forrestal Building, 1000 Independence Avenue, SW., Washington, D.C.

BACKGROUND

Site Function

The Al-Tech Watervliet plant was used in 1950, 1951, and 1952 for the processing of uranium metal for AEC. The company, known as Allegheny-Ludlum Steel Corporation at the time of the contract (No. AT(30-1)-1156 with National Lead of Ohio), rolled uranium billets into solid rods. The operation was on a developmental rather than a production scale. The contract called for the return of all uranium-bearing material and any scrap generated in the operation to AEC. Finished rods were shipped to either Hanford or Savannah River. Available records indicate that a total of 918 billets were rolled on three occasions in March, April, and May 1952. More definitive information on the total quantity of uranium processed during the term of the contract is not available. The uranium operations were limited to the 14-inch rolling mill and an annealing furnace and were conducted only on weekends. AEC personnel were on hand during the rolling operations and carefully vacuum-cleaned areas surrounding the rolling mill and made radiation measurements. However, no records are presently available. The primary purpose of the contract was to develop design criteria for the planned Fernald rolling mill. The 14-inch mill was removed in 1960 to Al-Tech's Dunkirk, New York, plant.

Site Description

The facilities are owned and operated by Al-Tech Specialty Steel Corporation, formerly Allegheny-Ludlum Steel Corporation. The Watervliet site is located on Spring Street Road and consists of a building and surrounding property. The area where the mill operated

in 1950 through 1951 is now used for metal and roller storage. The annealing furnace is still in use but could be any one of four electric furnaces. Furnace liner material was replaced several times in the interim. This material is believed to have been buried in the company disposal yard. The building housing the operation has been rearranged and expanded significantly since 1951.

The Al-Tech plant in Dunkirk, New York, is located on Willowbrook Avenue. The affected area includes the mill building and the scrap yard.

Radiological History and Status

On August 19, 1976, alpha and beta-gamma survey measurements were made by Oak Ridge National Laboratory (ORNL) and Oak Ridge Operations Office personnel on surfaces in the involved areas. Measurements were also made in the company disposal yard. Since 1973, Al-Tech has mined the yard for metal recovery. This resulted in the recovery of materials previously covered by many years of waste disposal, i.e., furnace liner bricks. All radiation levels measured at the plant were indistinguishable from natural background radiation. Because no elevated radioactivity was detected and only uranium was handled, in a relatively nondispersible form and on a limited developmental scale, ORNL concluded that any radioactive residue from the AEC contract operations was insignificant and further surveys were not required. Although the equipment was only used for a short period of time, a survey of the 14-inch rolling mill relocated to the Dunkirk, New York, facility was recommended. In September 1980, ORNL surveyed those portions of the mill that were still available. Radiation levels were equal to background, and ORNL concluded that no potential health hazards exist due to AEC activities at either the Watervliet or Dunkirk locations.

ELIMINATION ANALYSIS

Scrap recovery procedures in force at the time of the rolling operations are judged likely to have prevented the loss of any significant quantity of the metal. Radiological surveys of the plant area in which the rolling was performed and of the equipment used indicate that radiation levels are typical of natural background for the area. These data indicate that no significant quantity of residual radioactive material remains at the site from AEC operations. On the basis of the data summarized in this report, the DOE Division of Facility and Site Decommissioning Projects has determined that no remedial action is necessary at this site and has eliminated Al-Tech Specialty Steel Corporation from further consideration under the Formerly Utilized Sites Remedial Action Program.

REFERENCES

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