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CERTIFICATION DOCKET
FOR
BETHLEHEM STEEL CORPORATION
LACKAWANNA, NEW YORK

Department of Energy
Office of Nuclear Energy
Office of Terminal Waste Disposal and Remedial Action
Division of Remedial Action Projects

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Certification Docket
Bethlehem Steel Corporation
Lackawanna, New York

Introduction

The Department of Energy (DOE), Office of Nuclear Energy, Office of Terminal Waste Disposal and Remedial Action, Division of Remedial Action Projects (and/or predecessor agency, offices and divisions) has reviewed the past activities of the Atomic Energy Commission (AEC) at the Bethlehem Steel Corporation, Lackawanna, New York, and completed radiological screening surveys at the site. DOE has determined that the conditions at this site are in compliance with current radiological guidelines and standards¹ and that no potential for radiological exposure to persons exists beyond those resulting from natural background. Therefore, this site requires no remedial action and is not being considered for inclusion in the Formerly Utilized Sites Remedial Action Program.

Purpose

The material in this docket consists of documents supporting the certification that the radiological conditions at the Bethlehem Steel Corporation site are in compliance with current radiological guidelines and standards determined to apply to this site and provides assurance that use of these areas will not result in any measurable radiological hazard to the general public.

¹ U.S. Department of Energy Interim Residual Contamination and Waste Control Guidelines for Formerly Utilized Sites Remedial Action Program (FUSRAP) and Remote Surplus Facilities Management Program (SFMP) Sites, March 21, 1984.

The certification docket will be archived by the Department of Energy through the Assistant Secretary for Management and Administration. Copies of this docket will be maintained by the Department at the DOE Reading Room in Washington, D.C., so that it will be accessible to members of the general public.

Docket Contents

A brief summary of the site description, history and activities of the AEC are discussed in Exhibit I of the certification package.

Exhibit II of the certification docket contains copies of reports and correspondence supporting certification, a copy of the certification statement and a copy of the Federal Register notice.

EXHIBIT I

Summary of Activities at the Bethlehem Steel Corporation Lackawanna, New York

Site Function

In 1949, in order to develop mill pass schedules for the rolling of natural uranium billets into 1-1/2 inch rods (to be used for reactor fuel rods), the AEC awarded a contract to Bethlehem Steel. The project was completed in 1952. The data developed were used in the design of a rolling mill at the Feed Materials Production Center in Fernald, Ohio. All work at Lackawanna was limited to weekends and involved only the 10-inch bar mill and associated billet preparation and handling equipment. Material accountability procedures required collection of scale, residues, and cropped ends and vacuuming of fine debris for return to the AEC. Shipments were received from Mallinckrodt during the week and stored at the mill in rail cars. Following rolling, the material was bundled and shipped to the AEC. The AEC personnel were present during all rolling operations and apparently made radiological surveys. Contracts under which this work was conducted included AT(30-1)-1279 and AT(30-1)-1156 (subcontract).

Site Description

The facilities owned and operated by Bethlehem Steel are located in Lackawanna, New York (see Figure 1). The 10-inch mill was in use for metal rolling operations during the time of the August 1976 radiological screening survey, but has since been taken out of service and dismantled. Ancillary equipment, other than some rolls thought to have been used for uranium work, could not be located.

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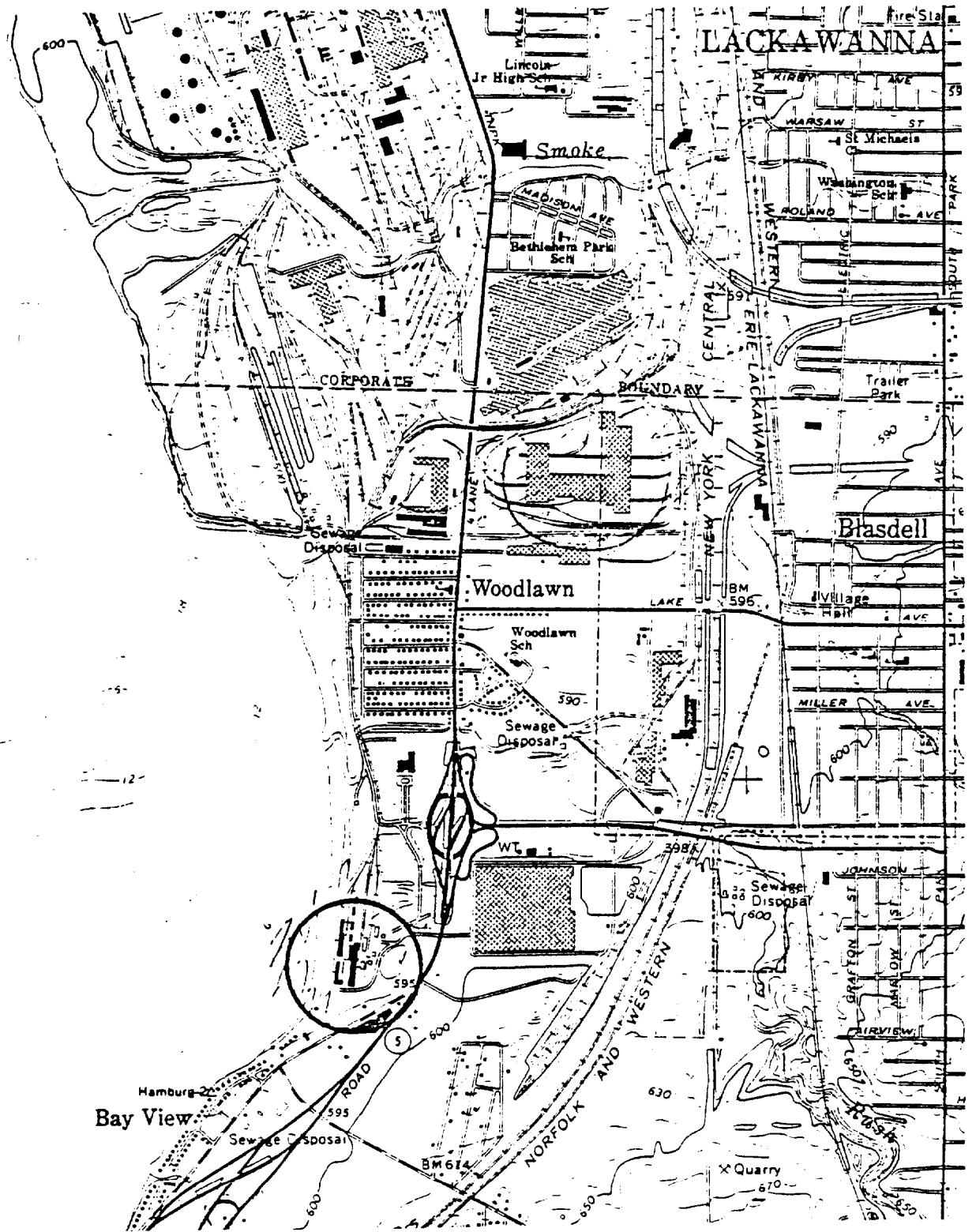


Figure 1. Location of the Bethlehem Steel Site
in Lackawanna, New York

Radiological History and Status

An alpha and beta-gamma smear survey conducted by Bethlehem Steel during May 1976 included the 10-inch bar mill and building surfaces in the area of uranium operations. No removable radioactivity was detected. On August 26, 1976, personnel from Oak Ridge Operations Office and Oak Ridge National Laboratory (ORNL) visited the site. They performed a radiological screening survey while the mill was in operation. The survey included direct measurement of alpha and beta-gamma radiation levels. No radioactivity above background levels was detected during this survey. Because no elevated radioactivity levels were detected and operations were on a limited developmental scale, it was concluded that no significant radioactive residual from AEC contract operations exists at the site; however, because the equipment was non-operational an additional radiological screening survey of the equipment was completed in September 1980. This followup survey also found no radiation levels significantly above background at the facility.

EXHIBIT II

Documents Supporting the Certification
of the
Bethlehem Steel Corporation
Lackawanna, New York

- o LaMastra, A. (Radiation Control Engineer) to D.L. Webster (Chief Environmental Health Engineer)--"Investigation Report: Uranium Metal Rolling, 10" Bar Mill, Lackawanna Plant," June 29, 1976.
- o Thorton, William T. (ERDA) to D.M. Anderson (Bethlehem Steel Corporation)--"Radiological Status of Bethlehem Steel Facilities Utilized in AEC Contract Activities," August 6, 1976.
- o Thorton, William T. (ERDA) to R.H. Kennedy (DSSC-HQ)--"ERDA Resurvey Program - Bethlehem Steel, Lackawanna, New York," March 16, 1977.
- o Hollister, Hal (ERDA) to William T. Thorton (ERDA)--"Bethlehem Steel, Lakawanna, New York," May 20, 1977.
- o Hart, R.J. (ERDA) to D.M. Anderson (Bethlehem Steel Corporation)--"Radiological Clearance: Facilities Operated Under Former AEC Contract," May 27, 1977.
- o A "Preliminary Survey of Bethlehem Steel, Lackawanna, New York," Oak Ridge National Laboratory, March 1980.
- o A "Survey of Rolling Mills Used by Bethlehem Steel Corporation, Lackawanna, New York," Oak Ridge National Laboratory, September 1980.



BETHLEHEM STEEL

June 29, 1976

FILE REF.

FROM A. LaMastra, Radiation Control Engineer
TO D. L. Webster, Chief Environmental Health Engineer
SUBJECT INVESTIGATION REPORT: URANIUM METAL ROLLING,
10" BAR MILL, LACKAWANNA PLANT

*Investigation, ERDA-611
3/14/77*

General Information

On May 7, 1976 an article appeared in the Buffalo Courier Express listing Bethlehem Steel Corporation's Lackawanna Plant as one of several facilities which handled radioactive material for the U. S. Atomic Energy Commission (AEC) during the late 1940's and early 1950's. The U. S. Energy Research and Development Administration (ERDA), formerly the research and development arm of the AEC, had developed a list of 49 sites for which only incomplete records existed. Lackawanna was one of the 49 sites. The initial story was reported by the Washington Star and subsequently picked up by the Buffalo paper. The report in the Star indicated that Federal experts were surveying for possible contamination from lax handling methods, for material possibly buried at the sites, and for possible spreading to other sites.

An investigation by this Division was begun on May 10 along several independent avenues. The following is a summary of the information and recollections we have been able to assemble from Lackawanna Plant employees, from a letter from ERDA (Oak Ridge Operations, letter attached herewith), and from an extensive contamination survey of the 10" Bar Mill.

In 1949, the U. S. AEC was developing mill pass schedules for the rolling of natural uranium billets produced by Mallinckrodt Chemical, St. Louis, Missouri, into 1½-inch rods. The rods were to be used as fuel rods in nuclear reactors. The AEC gave a contract to Bethlehem Steel to develop the necessary pass schedules. All work was completed between 1949 and 1951. The information gained at Lackawanna was used by the AEC in designing a rolling mill at the National Lead Company plant in Fernald, Ohio which began production in 1953.

All developmental work at Lackawanna was limited to weekends. Shipments were received from Mallinckrodt during the week and stored at the mill building. Following rolling, the rods were packaged in bundles and shipped to the AEC. No definitive records of the operations have been found either in former AEC files or at Lackawanna or in Corporate files. According to comments received from National Lead personnel, from a former superintendent of the 10 and 12-inch Bar Mill at Lackawanna, and from ERDA, the Lackawanna rolling was considered "clean". Scale, residue and cropped ends were collected and fine debris was vacuumed. AEC personnel were in attendance during all rolling operations and reportedly performed air and surface radioactive monitoring. It was also indicated that the AEC checked the personnel involved in the rolling for any contamination. (No records are available of this. If records ever did exist, they have not been retained by ERDA.)

On May 11, 56 locations on the 10-inch Bar Mill and associated equipment were tested for radioactive contamination using dry wipes. On May 17, 12 additional rolls for the 10-inch mill, some of which are believed to date back to the time of subject rolling, were found and wiped. All samples were analyzed for both alpha and beta radiation using an internal gas flow proportional counter. No radioactive contamination above natural background was found on any wipe.

Results and Conclusions

1. Although there is a lack of past monitoring records and most of the available information is from the recollection of persons involved, it does not appear that a significant health hazard from radioactivity existed at Lackawanna at any time during or following this project.
2. The high monetary value and the military use of the uranium would result in a high degree of accountability. This would substantiate the extensive clean-up measures taken during the rolling operations.
3. In an intensive survey made subsequent to the news item, no radioactive contamination was found in the mill used during the project.
4. No records have been discovered which describe health physics activities performed during the project. Further inquiry is being made to the U. S. Nuclear Regulatory Commission's New York Office.
5. In summary, there is no evidence to indicate that handling and cleanup methods were lax during the Lackawanna rolling operation, that there is any of the uranium buried on Lackawanna property or in the Buffalo area as a result of the rolling operation, or that there was a spread of contamination to any areas. There is no evidence to indicate that any person has ever been significantly exposed to radiation from this operation. All evidence found thus far indicates that there is no hazard at this operation from radioactive materials.

A. LaMastra

A. LaMastra

AL:ws

August 6, 1976

Dr. D. M. Anderson
B-252
Martin Tower
Bethlehem Steel Corporation
Bethlehem, Pennsylvania 18016

Dear Dr. Anderson:

**RADIOLOGICAL STATUS OF BETHLEHEM STEEL FACILITIES UTILIZED IN AEC
CONTRACT ACTIVITIES**

This will confirm discussions with your Mr. Tony Lamastra arranging for Energy Research and Development Administration representatives to visit those Bethlehem Steel facilities in Lackawanna, New York, which were utilized in the early 1950's for uranium metal rolling operations under AEC contract. On January 19, 1975, ERDA assumed control of all but the regulatory functions of AEC. As part of an overall ERDA program, the visit will assist us in evaluating the adequacy of existing radiation records and determining the need for additional surveys so the agency and the contractor may be assured that conditions do not exist which would be contrary to current guidelines for radiation control.

Should adequate records not be available, a further radiation survey of involved areas may be appropriate. If that is the case, we would hope on this visit to secure information to aid in developing site specific plans in order to conduct a survey with your permission in the near future.

Mr. Howard Dickson of the Oak Ridge National Laboratory and I plan to arrive at the Lackawanna Plant August 26, 1976, at 9:00 AM where we understand Mr. Lamastra will join us.

Your cooperation in this matter is greatly appreciated.

Sincerely,
ORIGINAL SIGNED BY
W. T. THORNTON

William T. Thornton
Health Physicist
Health Protection Branch
Safety and Environmental Control Division

OSH:WTT

OFFICE	J. W. Range, PIO	HP Br	Safety Dv.	PIO
SURNAME	W. H. Travis, SAC	Thornton, ndw		
DATE		8-6-76	2/6/76	5/11/76



UNITED STATES
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

OAK RIDGE OPERATIONS
P. O. BOX E
OAK RIDGE, TENNESSEE 37830

AREA CODE 615
TELEPHONE 483-861

March 16, 1977

Assistant Director for Health Protection, DSSC-HQ
ATTN: R. H. Kennedy, DSSC-HQ

ERDA RESURVEY PROGRAM - BETHLEHEM STEEL, LACKAWANNA, NEW YORK

On August 26, 1976, H. W. Dickson of ORNL and I visited the Lackawanna Plant of Bethlehem Steel to make an assessment of the radiological status of facilities utilized during 1949-51 for AEC contract work involving uranium. Discussions were held with Mr. Anthony LaMastra, the company health physicist, and others who were familiar with equipment and plant areas involved in the AEC operations. Following is a statement of findings:

Operations History: In 1949 the AEC, in order to develop mill pass schedules for the rolling of natural uranium billets into 1-1/2" rods, awarded a contract to Bethlehem Steel. The rods were to be used as reactor fuel. All work at Lackawanna was limited to weekends and involved only the 10-inch bar mill and associated billet preparation and handling equipment. Material accountability procedures required collection of scale, residues, and cropped ends and vacuuming of fine debris for return to AEC.

Current Status of Facilities: The 10-inch mill continues to be used for metal rolling operations. Ancillary equipment, other than some rolls thought to have been used for uranium work, could not be located.

Radiation Survey Findings: An alpha and beta-gamma smear survey conducted by Bethlehem during May 1976 included the 10-inch bar mill and building surfaces which were in the area of uranium operations. No removable radioactivity was detected. A copy of the Bethlehem report is in our facility file. During our August 26 visit, direct measurement of alpha and beta-gamma radiation levels were also made in these areas and revealed no radioactivity above background levels.

Conclusion: Since no elevated radioactivity levels were detected and since operations were on a limited developmental scale, it is concluded that no significant radioactive residual from AEC contract operations exists at the site.



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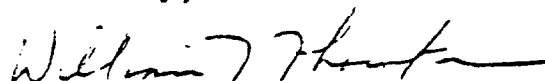
*Medical
Mr Kennedy
action
Request
[Signature]*

March 16, 1977

Recommendation. It is recommended that no further radiation surveys be made at the Lackawanna site.

Upon HQ concurrence with the above recommendation, the enclosed letter will be sent to Bethlehem Steel.

Sincerely,



William T. Thornton
Health Protection Branch
Safety and Environmental Control Division

OSH:WTT

Enclosure:
Draft Letter

cc: J. W. Range, PIO
W. H. Travis, S&EC



UNITED STATES
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
WASHINGTON, D.C. 20545

MAY 20 1977

William T. Thornton
Health Protection Branch
Safety and Environmental
Control Division
Oak Ridge Operations Office

BETHLEHEM STEEL, LACKAWANNA, NEW YORK

Based upon the findings indicated in your letter report of March 16, 1977, we see no problem with your conclusion and agree with your recommendation that no further radiological surveys are necessary at the Lackawanna plant.

Hal Hollister
Hal Hollister, Acting Director
Division of Operational and
Environmental Safety

cc: W. McCann, OPA
W. Brown, OGC

662
MAY 25 1977

MAY 27 1977

Dr. D. M. Anderson
Manager, Environmental Quality Control
B-252
Martin Tower
Bethlehem Steel Corporation
Bethlehem, Pennsylvania 18016

Dear Dr. Anderson:

RADIOLOGICAL CLEARANCE: FACILITIES OPERATED UNDER FORMER AEC CONTRACT

In May 1976 several sites were identified in the press as locations being reviewed by ERDA to reassess the significance of any radioactivity which might have been left at the conclusion of work under an Atomic Energy Commission contract. "Bethlehem Steel, Buffalo (Lackawanna) New York" was one of the sites so identified.

Based on radiation measurements made by Bethlehem Steel and confirmed during a visit by ERDA representatives to the Lackawanna Plant on August 26, 1976, it is concluded that no potential for radiation-related safety problems exists in the involved facilities and that further formal ERDA radiation surveys are not warranted.

May I express sincere regret for any inconvenience or apprehension caused your company or its employees in this matter. If you request, a press release will be issued in the Buffalo, New York area clearing the Bethlehem Steel Plant.

If you have questions on this matter, do not hesitate to call Mr. W. T. Thornton of my staff (615) 483-8611, extension 3-4113.

Your assistance in this matter is greatly appreciated.

Sincerely,

ORIGINAL SIGNED BY
Charles A. Kuttler
Manager

for

CSH:WTF

ok

cc: J. W. Rango, FID
W. R. Travis, S&EC

OFFICE	<i>W.P. B...</i>	<i>S+SC</i>	<i>P/O</i>	<i>AMS</i>		
SURNAME	<i>Thornton</i>	<i>Kuttler</i>	<i>W...</i>	<i>Keller</i>		
DATE	<i>5/25/77</i>	<i>5/26/77</i>	<i>5/25-77</i>	<i>5/26/77</i>		

PRELIMINARY SURVEY OF
BETHLEHEM STEEL
LACKAWANNA, NEW YORK

Work performed
by the
Health and Safety Research Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

March 1980

OAK RIDGE NATIONAL LABORATORY
operated by
UNION CARBIDE CORPORATION
for the
DEPARTMENT OF ENERGY
as part of the
Formerly Utilized Sites--
Remedial Action Program

BETHLEHEM STEEL
LACKAWANNA, NEW YORK

At the request of the Department of Energy (DOE, then ERDA), a preliminary survey was performed at the Bethlehem Steel Corporation's plant in Lackawanna, New York (see Fig. 1), on August 26, 1976, to assess the radiological status of those facilities utilized under Atomic Energy Commission (AEC) contract during the period 1949 through 1951. Anthony LaMastra of Bethlehem Steel, who was in charge of radiation safety, provided information about the project, and John Baker assisted in conducting a tour of facilities. R. H. Custer, who was employed at the plant at the time of the project, also provided useful information about the project.

From discussion and review of correspondence related to the project, it appears that the AEC awarded a contract to Bethlehem Steel Corporation in 1949 to develop mill pass schedules for the rolling of natural uranium billets into 3.8-cm rods. The rods were to be used as reactor fuel. The billets were produced and received by rail car from Mallinckrodt Chemical of St. Louis, Missouri. Rolling operations involving uranium were conducted only on weekends due to work commitments at the mill during the weekdays. Rail cars containing billets were believed to have been spotted inside the plant and served as storage for the uranium during the weekdays. These billets were then processed into 3.8-cm-diam rods, cropped and packaged in bundles to reduce bending damage, and shipped. Apparently, all scale, residue, and cropped ends were collected and fine debris was vacuumed as the mills were prepared for other work each week. Even though it appears that AEC personnel were present during the rolling operations, and radiological surveys were conducted, no records are available presently.

Present Use of Facilities

The 25.4-cm rolling mill used in contract work continues to be used for metal rolling operations. Any other ancillary equipment which may have been associated with the project was not located during the survey.

Results of Preliminary Survey

The preliminary survey was conducted by H. W. Dickson of the Oak Ridge National Laboratory and W. T. Thornton of the DOE/Oak Ridge Operations Office. A survey of the 25.4-cm mill and areas surrounding the mill was performed. The survey consisted of direct measurements of alpha activity and beta-gamma dose-rate levels on surfaces. Measurements were made with portable alpha scintillator and Geiger-Mueller survey instruments. All measurements taken at this site resulted in radiation levels that were within typical background levels. Additionally, on May 11, 1976, Anthony LaMastra of Bethlehem Steel Corporation (a health physicist) performed a radiological survey for removable radioactive contamination from the same locations. The results of that survey are contained in the attached report. It was concluded that levels of radioactivity at the Bethlehem Steel plant in Lackawanna, New York, are within available guidelines for unrestricted use and no further DOE survey is recommended.

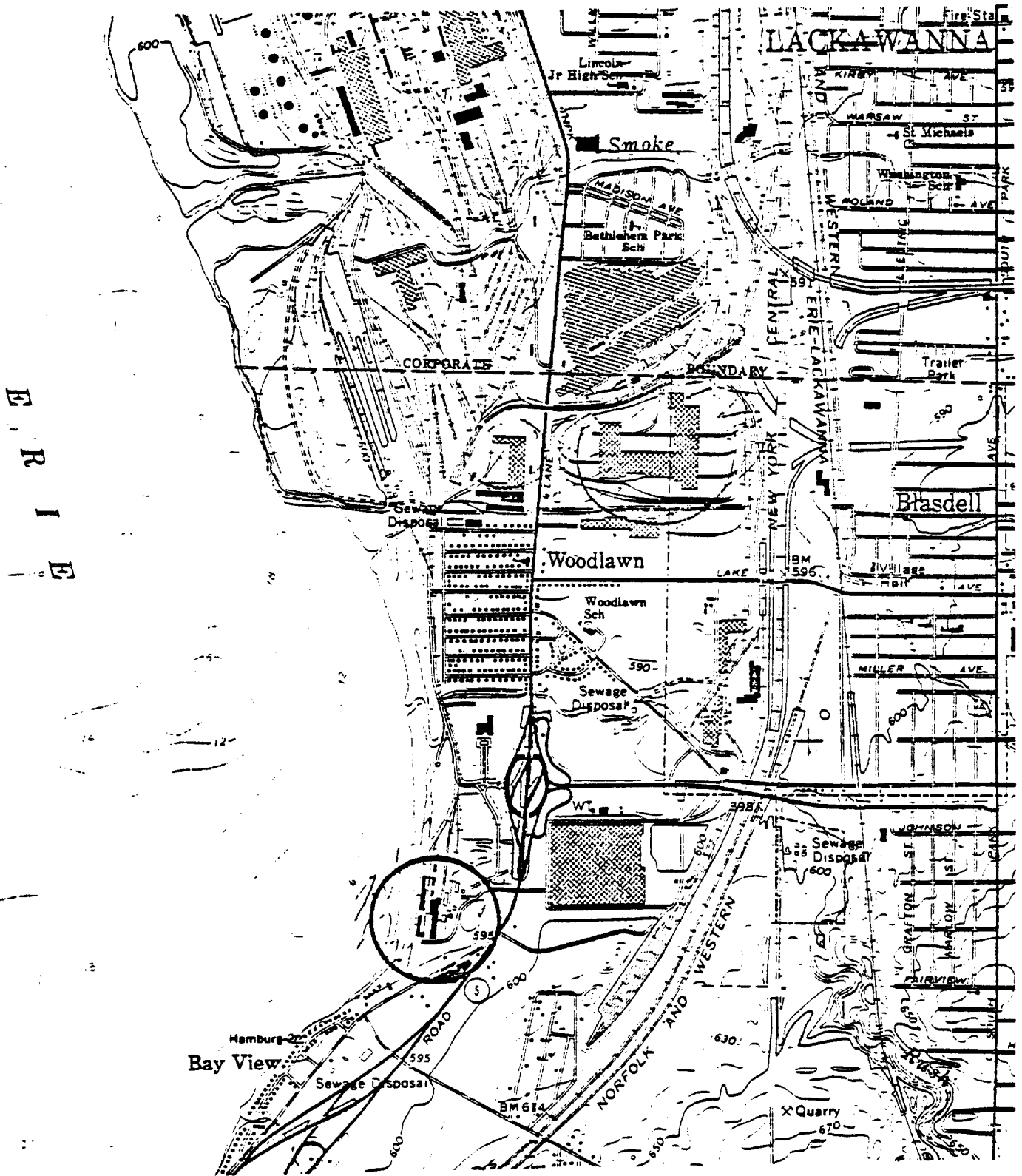


Fig. 1. Location of the Bethlehem Steel site in Lackawanna, New York.

SURVEY OF ROLLING MILL USED BY
BETHLEHEM STEEL CORPORATION
LACKAWANNA, NEW YORK

Work performed
by the
Health and Safety Research Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

September 1980

OAK RIDGE NATIONAL LABORATORY
operated by
UNION CARBIDE CORPORATION
for the
DEPARTMENT OF ENERGY
as part of the
Formerly Utilized Sites--
Remedial Action Program

SURVEY OF ROLLING MILL USED BY
BETHLEHEM STEEL CORPORATION
LACKAWANNA, NEW YORK

A radiological survey was conducted at the Bethlehem Steel Corporation Plant in Lackawanna, New York, on September 23, 1980, by representatives of Oak Ridge National Laboratory (ORNL). The subject of the radiological survey was a portion of the original 25.4-cm (10-inch) bar mill used in converting uranium billets into 3.8-cm rods. All radiation survey measurements taken during an earlier survey (see attachment, "Preliminary Survey of Bethlehem Steel, Lackawanna, New York") were within typical background levels. However, it was believed that a more detailed survey of the bar mill would be desirable.

The following conditions were present at the site of the bar mill at the time of the present survey: (1) the original bar mill used at the time of Atomic Energy Commission (AEC) activities was stored as scrap and was removed for recycling within the last six months; (2) the floor and pit where the bar mill was located during operations was covered by a new concrete floor varying in thickness up to a maximum of approximately 1 m; (3) the stand and shoe plates associated with the bar mill were removed and scrapped. The only remaining equipment at the Lackawanna Plant used during AEC activities is a shear used for cropping the 3.8-cm uranium rods. However, the shear was not located in its original location at the time of AEC-related operations.

Survey Results

A radiological survey was performed on the surfaces of the shear. Measurements included a gamma-scan of all accessible equipment surfaces, a beta-gamma scan of selected equipment surfaces, and alpha activity at random locations on equipment surfaces. All measurements taken of equipment surfaces resulted in no radiation levels significantly above background levels.

Conclusions

Since all radiological measurements taken at the Bethlehem Steel Corporation Plant in Lackawanna, New York, have resulted in radiation levels within background levels, it is concluded that no present or potential radiation-related health hazards exists due to previous AEC-related activities. It is recommended that no further Department of Energy (DOE) radiological surveys be performed at this site and that it is released by DOE for unrestricted use.

Reply: NE-24

Subject: Recommendation for Certification of Acceptable Radiological Conditions and Termination from the Formerly Utilized Sites Remedial Action Program: Bethlehem Steel Corporation, Lackawanna, New York; Al-Tech Specialty Steel Corporation (the former Allegheny-Ludlum Steel Corporation), Watervliet, New York, and offsite property in Dunkirk, New York; Hooker Specialty Chemicals Division, Hooker Chemical and Plastic Corporation (Former Hooker Electrochemical Division), Niagara Falls, New York; and Columbia University, New York, New York.

TO: William K. Voigt, Jr., Acting Director
Office of Terminal Waste Disposal
and Remedial Action

I am attaching for your signature the statements of certification and the Federal notice of certifications of the following sites:

- o Bethlehem Steel Corporation, Lackawanna, New York;
- o Al-Tech Specialty Steel Corporation (the former Allegheny-Ludlum Steel Corporation), Watervliet, New York, and Offsite Property in Dunkirk, New York;
- o Hooker Specialty Chemicals Division, Hooker Chemicals and Plastic Corporation (formerly Hooker Electrochemical Division), Niagara Falls, New York; and
- o Columbia University, New York, New York.

These four sites had been utilized by the Manhattan Engineer District (MED) and/or the Atomic Energy Commission (AEC) during the early years of nuclear research, development, and production. Since that time, radiological surveys and/or screening surveys have been conducted at these sites to determine the radiological conditions at these sites.

The Bethlehem Steel Corporation was under contract with AEC during the period 1949 through 1951 to roll natural uranium billets into 1-1/2 inch rods for use as reactor fuel. Screening surveys were conducted at the Bethlehem Steel plant in 1976 and 1980 by Oak Ridge National Laboratory. These surveys detected no levels of radioactivity above background levels at the facility.

The former Allegheny-Ludlum Steel Corporation processed uranium billets into solid rods under contract with AEC during the early 1950s at their Watervliet plant. In 1960, the 14-inch mill used for AEC operations was removed from Watervliet to a Dunkirk plant. On August 19, 1976, Oak Ridge National Laboratory conducted a screening survey of the former Allegheny-Ludlum Steel site in Watervliet. Later in September 1980, Oak Ridge National Laboratory conducted a survey of the remaining portions of the mill that had been relocated in Dunkirk. These surveys detected no levels of radioactivity above background levels.

The former Hooker Electrochemical Division of the Hooker Chemical Company under contract with MED from January 1943 until shortly after World War II, performed chemical processing (slag recovery) of uranium-bearing materials as a precursor to uranium recovery. A radiological survey was conducted by Oak Ridge National Laboratory in October 1976 at the Hooker Chemical Company site. The final survey report, published in January 1977, documented the residual radioactivity levels as within current Federal and state guidelines for unrestricted use.

Columbia University was a major contributor to research and development efforts during the early years of nuclear development under MED and later under AEC. Research included work on isotope separation (centrifuge and gaseous diffusion), the nuclear chain reaction, and on atomic pile. Five buildings at Columbia University were identified as used by the MED and the AEC. All buildings, except for Nash, are currently involved in radioactive work, licensed by the Nuclear Regulatory Commission and the City of New York. On August 16, 1976, Oak Ridge Operations Office personnel visited the Columbia University campus to determine if conditions warranted a radiological survey of the site. It was concluded based on this site visit and screening survey that the contamination due to MED operations was adequately decontaminated by the University and no additional actions were warranted by DOE.

Based on a review of pertinent documents, the Director of the Division of Remedial Actions Projects has determined that the conditions at these four sites are below the current criteria for remedial actions. Therefore, no remedial action is required and these sites are not to be considered for inclusion in the Formerly Utilized Sites Remedial Action Program.

Following your concurrence in the certifications, this office will notify interested state and local agencies, the public, the specific property owners of the certification actions by correspondence announcements as appropriate. The documents transmitted with the statements of certification and the Federal Register notice will be compiled in final docket form by the Division of Remedial Action Projects for retention in accordance with DOE Order 1324.2 (Disposal Schedule 25).

J.E. Baublitz, Director
Division of Remedial Action Projects

STATEMENT OF CERTIFICATION
BETHLEHEM STEEL CORPORATION
LACKAWANNA, NEW YORK

The Office of Terminal Waste Disposal and Remedial Action has reviewed and analyzed historical data on the development scale operation and the radiological screening survey data obtained at the Bethlehem Steel Corporation, Lackawanna, New York. Based on this analysis, the Department of Energy certifies the Bethlehem Steel Corporation, Lackawanna, New York site is in compliance with applicable radiological guidelines and standards. This certification of compliance provides assurance that the use of these properties will result in no radiological exposure above applicable criteria and standards to members of the general public or to site occupants. Therefore, this site is not being considered for inclusion in the Formerly Utilized Sites Remedial Action Program.

By: _____

Date: _____

William R. Voigt, Jr., Acting Director
Office of Terminal Waste Disposal
and Remedial Action

DEPARTMENT OF ENERGY

Office of Nuclear Energy

Certification of the Radiological Condition
of the Bethlehem Steel Corporation,
Lackawanna, New York

Al-Tech Specialty Steel Corporation,
(The Former Allegheny-Ludlum Steel Corporation),
Watervliet, New York, and Offsite Property in Dunkirk, New York

Hooker Specialty Chemicals Division,
Hooker Chemicals and Plastic Corporation,
(The Former Hooker Electrochemical Division),
Niagara Falls, New York

Columbia University, New York, New York

AGENCY: Office of Terminal Waste Disposal and Remedial Action

ACTION: Notice of Certification

SUMMARY: The Department of Energy has reviewed the past activities of the Manhattan Engineer District and/or Atomic Energy Commission and has completed radiological surveys and/or screening surveys at four sites and one associated property:

- o The Bethlehem Steel Corporation site located at 2558 Hamburg Turnpike, Lackawanna, New York;
- o The Former Allegheny-Ludlum Steel Corporation site located on Spring Street Road, Watervliet, New York, and offsite property, an AL-TECH Specialty Steel Corporation plant located on Willowbrook Avenue, Dunkirk, New York;
- o The Former Hooker Electrochemical Division site located on Buffalo Avenue, Niagara Falls, New York;
- o The Columbia University site in New York, New York.

As a result the Department, through the Office of Terminal Waste Disposal and Remedial Actions, has issued the four statements entitled:

1. STATEMENT OF CERTIFICATION, BETHLEHEM STEEL CORPORATION, LACKAWANNA, NEW YORK.

2. STATEMENT OF CERTIFICATION, AL-TECH SPECIALTY STEEL CORPORATION (THE FORMER ALLEGHENY-LUDLUM STEEL CORPORATION), WATERVLIET, NEW YORK, AND OFFSITE PROPERTY IN DUNKIRK, NEW YORK.
3. STATEMENT OF CERTIFICATION, HOOKER SPECIALTY CHEMICALS DIVISION, HOOKER CHEMICALS AND PLASTIC CORPORATION (FORMER HOOKER ELECTROCHEMICAL DIVISION), NIAGARA FALLS, NEW YORK.
4. STATEMENT OF CERTIFICATION, COLUMBIA UNIVERSITY, NEW YORK, NEW YORK.

The Office of Terminal Waste Disposal and Remedial Action has reviewed the decontamination efforts and/or surveys conducted at these four sites. Based on these reviews, the Department of Energy has certified that these sites are in compliance with applicable radiological guidelines and standards, and are released from the Formerly Utilized Sites Remedial Action Program.

FOR FURTHER INFORMATION CONTACT:

J.E. Baublitz, Director
Division of Remedial Action Projects (NE-24)
Office of Terminal Waste Disposal
and Remedial Action (NE-20)
U.S. Department of Energy
Washington, D.C. 20545
(301) 353-5272

SUPPLEMENTARY INFORMATION: The Department of Energy has established a program to characterize and, where necessary, correct the radiological conditions at sites formerly used by the Army Corps of Engineers' Manhattan Engineer District and the Atomic Energy Commission during the early years of nuclear research, development, and production. The ultimate objective of the program is to ensure that formerly utilized sites, and any associated properties in their vicinity, can be certified within current radiological guidelines and applicable standards established to protect the general public. The Bethlehem Steel Corporation, the former Allegheny-Ludlum Steel Corporation, the Former Hooker Electrochemical Division, and Columbia University located in New York are four of these sites.

The Bethlehem Steel Corporation during the period 1949 through 1951 was under contract with AEC to roll natural uranium billets into 1-1/2 inch rods for use in reactors. Screening surveys were conducted at the Bethlehem Steel plant in 1976 and 1980 by Oak Ridge National Laboratory. These surveys detected no levels of radioactivity above background levels at the facility.

The former Allegheny-Ludlum Steel Corporation processed uranium billets into solid rods under contract with the AEC during the early 1950's at their Watervliet plant. In 1960, the 14-inch mill was removed from Watervliet to a Dunkirk plant which was considered an offsite property in the investigation. On August 19, 1976, Oak Ridge National Laboratory conducted a radiological screening survey of the former Allegheny-Ludlum Steel site in Watervliet. Later in September 1980, Oak Ridge National Laboratory conducted a survey of the remaining portions of the mill relocated at the offsite property in Dunkirk. These surveys detected no levels of radioactivity above background levels.

The former Hooker Electrochemical Division, of the Hooker Chemical Company under contract with MED from January 1943 until shortly after World War II, performed chemical processing (slag recovery) of uranium-bearing materials as a precursor to uranium recovery. A radiological survey was conducted by Oak Ridge National Laboratory in October 1976 at the Hooker Chemical Company Site. The final survey report, published in January 1977, documented the residual radioactivity levels measured at this site are within NRC Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licences for By-Product Source, or Special Nuclear Material, USNRC (December 1975).

The Columbia University was involved in research and development efforts under MED during the early years of nuclear development and later under AEC. Buildings utilized for the MED/AEC work at Columbia included Pupin, Schermerhorn, Havemeyer, Nash, and possibly Prentiss. Research included work on isotope separation, the nuclear chain reaction, and an atomic pile. Five buildings at Columbia University were identified as used by the MED and the AEC. All buildings, except for Nash, are currently involved in radioactive work, licensed by the Nuclear Regulatory Commission and the City of New York. On

August 16, 1976, Oak Ridge Operations Office personnel visited the Columbia University campus to determine if conditions warranted a radiological survey of the site. It was determined that the site did not need remedial action.

These findings are supported by the Department of Energy's "Certification Docket for Bethlehem Steel Corporation, Lackawanna, New York," "Certification Docket for Al-Tech Specialty Steel Corporation (the Former Allegheny-Ludlum Steel Corporation), Watervliet, New York, and Offsite Property in Dunkirk, New York," "Certification Docket for Hooker Specialty Chemicals Division, Hooker Chemicals and Plastic Corporation, (Former Hooker Electrochemical Division), Niagara Falls, New York," and "Certification Docket for Columbia University, New York, New York." These dockets will be available for review between 8:00 a.m. and 4:00 p.m., Monday through Friday (except Federal holidays), at the Department of Energy's Public Document Room located in Room 1E-190 of the Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C.

Dated: _____

William R. Voigt, Jr., Acting Director
Office of Terminal Waste Disposal
and Remedial Action