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CT.6 (11) 3-4



Department of Energy
Washington, DC 20545

OCT 13 1987

Mr. James A. Connelly
Superintendent of Schools
45 Lion Terrace
Room 303, City Hall
Bridgeport, Connecticut 06604

Dear Mr. Connelly:

As you may know, the Department of Energy (DOE) is evaluating the radiological condition of sites that were utilized under the Manhattan Engineer District and the Atomic Energy Commission (AEC) during the early years of nuclear development to determine whether they need remedial action and whether the Department has authority to perform such action. Mr. Allen Wallack of Bridgeport's City Hall was notified in 1980 (Wallo to Wallack, 6/19/80) that the Kolbe High School, now called Ben Franklin Educational Center, was being considered a potential MED/AEC site, as a result of developmental work involving the extrusion of natural uranium done at this location by the Bridgeport Brass Co. during the period 1953-1962.

After reviewing historical records and survey reports, the Department has determined that there is no evidence of residual radioactivity above background radiation levels, and that the site is in compliance with current DOE guidelines and standards.

This letter, along with the enclosed summary report and supporting information, represents the results of the Department's review to determine if the site contains residual radioactive contamination traceable to the actions conducted on behalf of the AEC. The report is provided to you as the representative of the site owner, for your information. On the basis of the review, the Department has concluded that no potential exists for significant amounts of residual radioactive material derived from activities conducted for the AEC to remain at this site. As a result, the site was eliminated from further consideration under the Formerly Utilized Sites Remedial Action Program (FUSRAP). This package was prepared as the final DOE action on this site under FUSRAP.

Documentation supporting the Department's decision will be available for public review at the Department's Public Reading Room located in Room 1E-190 of the Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C.

If you have any questions regarding this decision or the availability of the material at the reading room, please contact Mr. Andrew Wallo of my staff at 301-353-5439.

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AW
Wallo

Sincerely,

10/9/87

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NE-23

James J. Fiore, Director
Division of Facility and Site
Decommissioning Projects
Office of Nuclear Energy

Fiore
JJF
10/13/87

Enclosures

cc:
Mr. K. McCarthy, Director
Radiation Control Unit
Connecticut Department of
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Hartford, Connecticut 06106

bcc:
W. Cottrell, ORNL, w/o enclosures
Aerospace, w/enclosures

NE-20 RF
NE-23 RF
Wallo RF
NEG (4)

NE-23:AWallo:ph:353-5439:10/6/87:IBM:274/49:

THE FORMER BRIDGEPORT BRASS COMPANY
Havens Laboratory
(Reactive Metals, Inc.)
Kossuth and Pulaski Streets
Bridgeport, Connecticut

Site Function

Under Atomic Energy Commission (AEC) contract AT(30-1)-1405, work with uranium was conducted on a laboratory developmental scale at this location from June 1952 to May 1962. The work included cold forming (extrusion) of natural uranium and associated cutting, storage, and laboratory support. In 1962, the operation was moved to a company facility in Seymour, Connecticut.

Site Description

The area under consideration consists of one building containing a laboratory and associated work areas. The attached figure shows the approximate location of the site in Bridgeport.

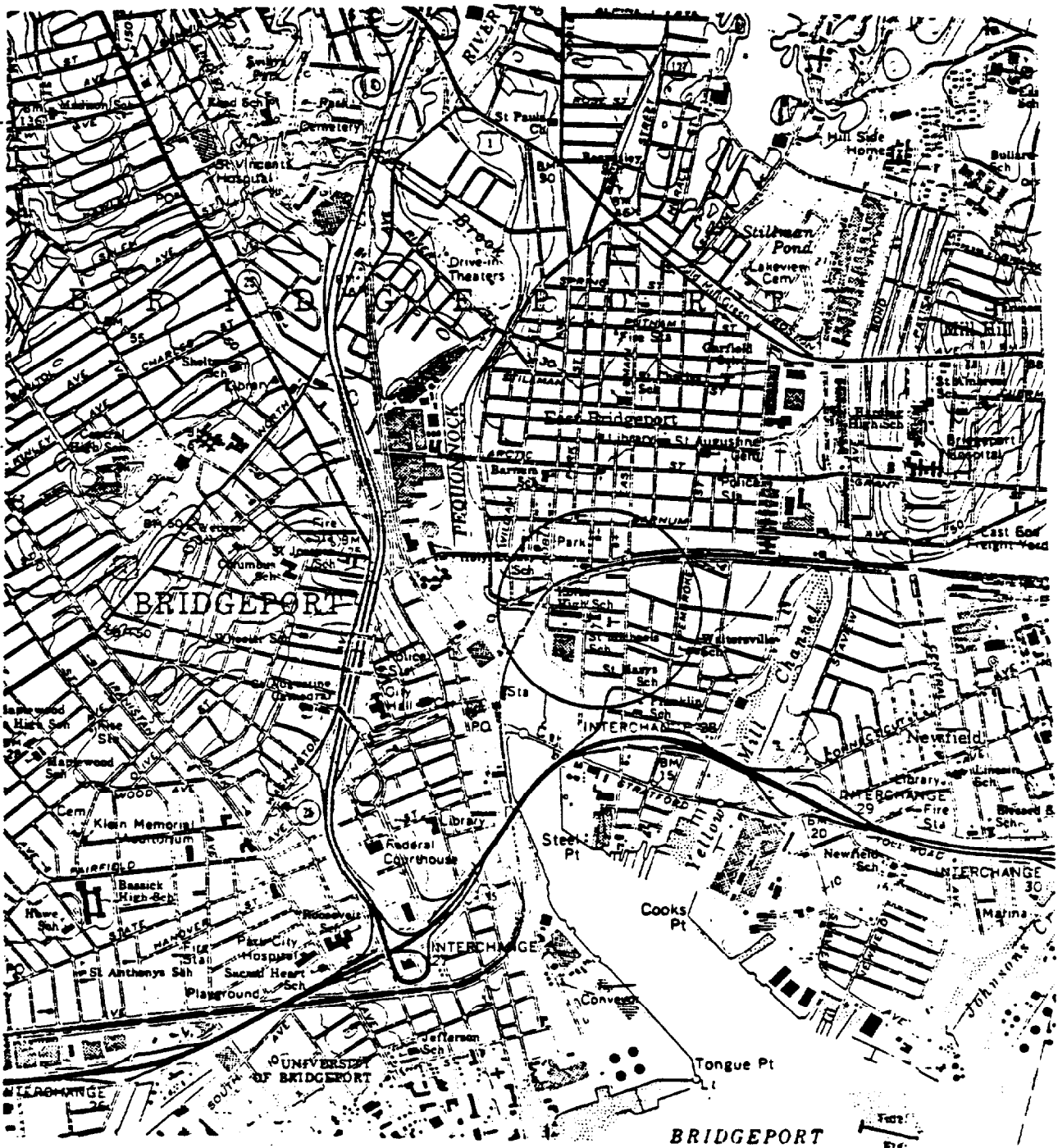
Owner History

This site was originally owned and operated by Bridgeport Brass Company, a subsidiary of National Distillers and Chemicals Corporation. The facility was sold to the Catholic Diocese for use as a school and was subsequently resold to the City of Bridgeport Board of Education.

Radiological History and Status

Historical files of Reactive Metals, Inc. (a fellow subsidiary of National Distillers and Chemical Corporation) contain information indicating a specific and successful decontamination effort to meet then-current limits for uncontrolled occupancy. These limits were not significantly different from the current Department of Energy guides. However, due to the potential for use as a school, Oak Ridge National Laboratory conducted a screening survey on August 26 and 27, 1980, to verify the radiological safety of this site. Radiation levels were at or near background levels.

Based on a review of historical records and radiological survey information, the Department of Energy determined that remedial action is not warranted at the Bridgeport site. The site has been eliminated from consideration for inclusion in the Formerly Utilized Sites Remedial Action Program. The final elimination report was completed in fiscal year 1987.



Location of Bridgeport Brass Company Site in Bridgeport, Connecticut

1961

CT. 6

Agropac

ORNL/RASA-85/6

Health and Safety Research Division

PRELIMINARY RADIOLOGICAL SURVEY OF THE FORMER HAVENS PLANT
OF THE BRIDGEPORT BRASS COMPANY, BRIDGEPORT, CONNECTICUT

May 1985

Work performed as part of the
RADIOLOGICAL SURVEY ACTIVITIES PROGRAM

OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee 37831
operated by
MARTIN MARIETTA ENERGY SYSTEMS, INC.
for the
U. S. DEPARTMENT OF ENERGY
under Contract No. DE-AC05-84OR21400

PRELIMINARY RADIOLOGICAL SURVEY OF THE FORMER HAVENS PLANT OF THE BRIDGEPORT BRASS COMPANY, BRIDGEPORT, CONNECTICUT

INTRODUCTION

The Bridgeport Brass Company's Havens plant located at Kossuth and Pulaski Streets, Bridgeport, Connecticut, was used under contract with the Atomic Energy Commission (AEC) to process uranium during the period 1953-1962. Contract work involved developmental cold forming (extrusion) of natural uranium metal and associated cutting, storage, and laboratory support. This operation was moved to the Bridgeport Brass Company's Seymour, Connecticut, site in 1962 and the vacated plant was subsequently sold. Record files at Old Reactive Metals, Inc. contain information which indicates that the Havens plant was successfully decontaminated to meet the then current "limits for uncontrolled occupancy" (memorandum, D. R. Jefferson, Bridgeport Brass to J. W. Ruch, AEC, August 1962 [copy attached]). However, under the Department of Energy's Formerly Utilized Sites Remedial Action Program (FUSRAP), the Havens site was identified as a candidate site to be investigated relative to present radiological conditions onsite.

Since the time of the AEC work, the former Havens plant building has apparently undergone extensive remodeling. The building is now owned by the city of Bridgeport, and has been converted to use as Kolbe High School. At the request of the Department of Energy, a preliminary radiological survey was conducted at Kolbe High School on August 26 and August 27, 1980 by members of the Health and Safety Research Division of Oak Ridge National Laboratory.

RESULTS OF THE SURVEY

The extensive remodeling of the old plant building into its present state made positive identification of specific areas that had been previously used for uranium processing extremely difficult. Mr. Crawford Hayes of Bridgeport Brass, Inc. provided background information and made

* The survey was performed by members of the Radiological Survey Activities Group of the Health and Safety Research Division at Oak Ridge National Laboratory under DOE contract DE-AC05-84OR21400.

contact with people who were familiar with processes that were carried out in the Havens plant. Based on recollections of these people and on information obtained from a layout map of the old Havens plant, sections of the Kolbe High School building were identified as being the areas that were most likely used for uranium processing during operation of the Havens plant. Areas identified for surveying included rooms of Kolbe High School presently numbered 108, 201, 202, 204 and entrance way, hallway and room 209, and a portion of the roof including a room vent which was believed to have been over the chemical laboratory of the Havens plant.

The preliminary radiological survey included the following measurements:

1. A gamma scan of indoor surfaces, floors, walls, and accessible support beams.
2. Beta-gamma dose rate measurements at selected locations on indoor surfaces.
3. Measurement of direct alpha activity on building surfaces.
4. Measurement of transferable alpha and beta-gamma activity on indoor surfaces.
5. Alpha and beta-gamma measurements on roof surfaces and room vents exhausting onto the roof.
6. A walkover gamma scan of grounds outside the school building.

Gamma scan measurements and beta-gamma dose rate measurements were all in the range of background except for measurements made on and near brick walls where measurements were found to be up to twice background. Gamma background levels in most areas of the United States range from 5 to 10 $\mu\text{R}/\text{h}$, and beta-gamma dose rates are of the order of 0.02 mrad/h. Brick walls usually show elevated gamma radiation levels due to the presence of small amounts of naturally-occurring radioactive materials in the raw materials from which the bricks are made. The elevated gamma levels measured on and near the brick walls of Kolbe High appear to be caused by naturally-occurring radioactive materials contained in the

brick. Measurements made on the bonnet of a room vent over the area formerly used as a laboratory in the old Havens plant gave a maximum value of 156 dpm/1000 cm² direct alpha and 0.02 mrad/h beta-gamma. All other direct alpha measurements both on the roof and inside the building were at background levels. Results of analyses of smear samples taken on the roof vent bonnet as well as those taken on top of suspended ceiling panels and steel supports in rooms of the building were all within background levels.

SIGNIFICANCE OF FINDINGS

The most probable areas of work with the former Bridgeport Brass Company's Havens plant were surveyed by ORNL for evidence of residual radioactivity above background radiation levels. No evidence was found at these locations where measurements were made to indicate the presence of any radiation levels in excess of those levels typically expected.