

OH.3-3

THE FORMER E. I. DU PONT DE NEMOURS AND COMPANY
GRASELLI RESEARCH LABORATORY
CLEVELAND, OHIO

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

ELIMINATION REPORT

FOR

THE FORMER E.I. DU PONT DE NEMOURS AND COMPANY

GRASELLI RESEARCH LABORATORY

CLEVELAND, OHIO

NOV 14 1985

Department of Energy

Office of Nuclear Energy

Office of Remedial Action and Waste Technology

Division of Facility and Site Decommissioning Projects

CONTENTS

	<u>Page</u>
INTRODUCTION	1
BACKGROUND	2
Site Function	2
Site Description	2
Radiological History and Status	4
ELIMINATION ANALYSIS	4
REFERENCES	5

ELIMINATION REPORT
THE FORMER E.I. DU PONT DE NEMOURS AND COMPANY
GRASELLI RESEARCH LABORATORY
CLEVELAND, OHIO

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 Manhattan Engineer District (MED) at the former Du Pont Grasselli Research Laboratory (now owned by Standard Oil Company of Ohio), Cleveland, Ohio. On the basis of a preliminary radiological survey of the site, DOE has determined that the conditions at this site are in compliance with current radiological guidelines and standards and that no potential for radiological exposure exists beyond those resulting from natural background. Therefore, this site requires no remedial action and 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 Grasselli Research Laboratory are in compliance with current DOE radiological guidelines and standards¹ and provides assurance that use of the site 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 Reading Room located in Room 1E-190 of the Forrestal Building, 1000 Independence Avenue, SW., Washington, D.C.

BACKGROUND

Site Function

The Grasselli Chemicals Department of Du Pont conducted development work on fabrication and coating of natural uranium slugs (1-inch x 6-inch cylindrical forms) under contract W-7412-Eng-24. The material was delivered to Cleveland from Battelle Columbus Laboratory, and, after chemical treatment, slugs were shipped to the University of Chicago. After the conclusion of the program (about 1945), the area was cleaned, and the remaining slugs were returned to the University of Chicago. No radioactive material other than natural uranium was ever present on the site, and none of the uranium was buried or otherwise disposed of at the site. The facility was owned and operated by E.I. du Pont de Nemours and Company until 1950. It was then sold to the current owner, the Standard Oil Company of Ohio. Part of the facility is currently leased to the Cleveland Regional Sewer District.

Site Description

The facility is located at 3092 Broadway Avenue (Figure 1). The MED work performed at the Grasselli facility was conducted in the three-story section at the east end of the Research Building.

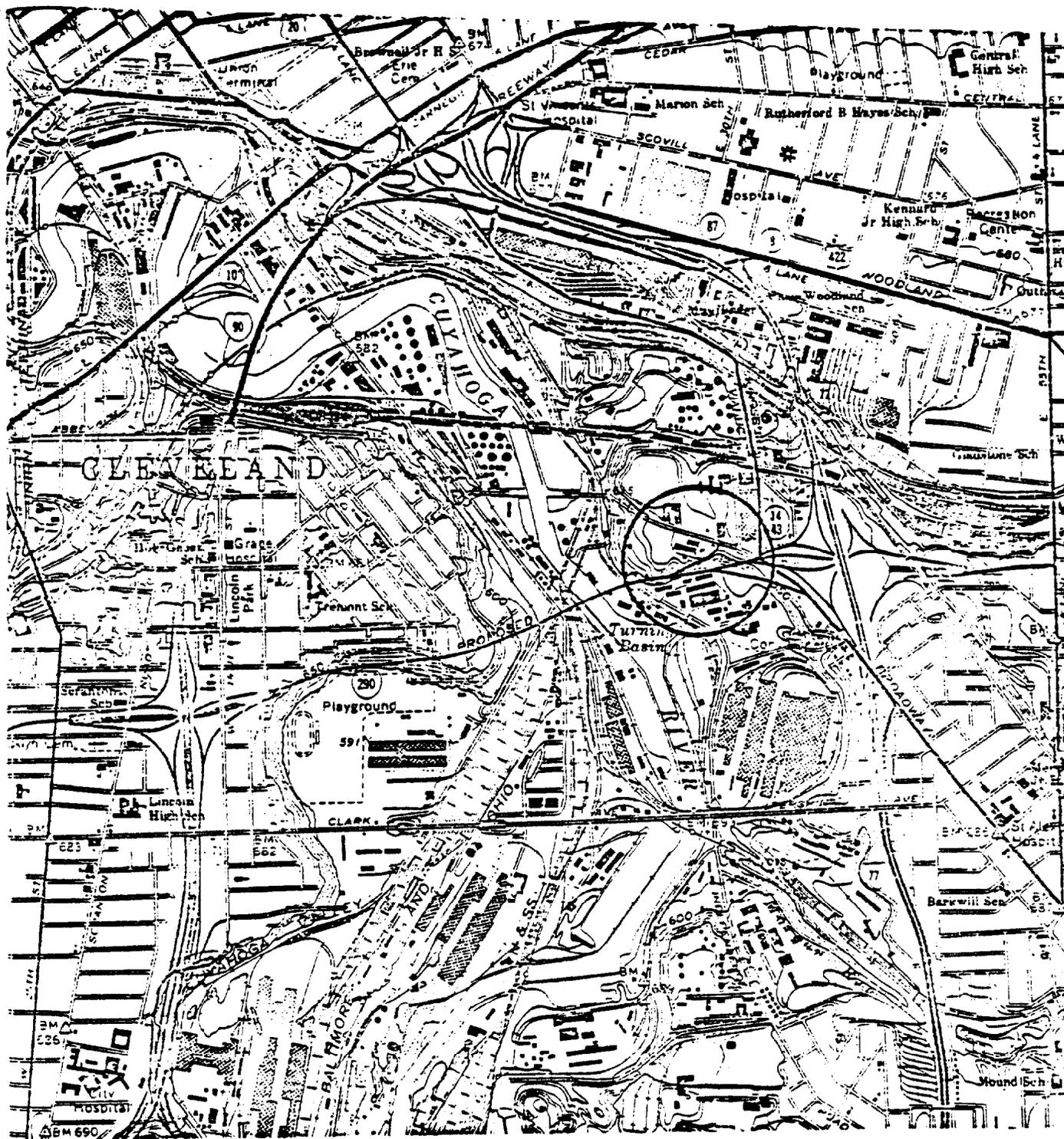


Figure 1. Location of the Former Graselli Research Laboratory of the E.I. du Pont de Nemours and Company in Cleveland, Ohio

Radiological History and Status

On October 27, 1976, personnel from the Department of Energy (DOE) (then the Energy Research and Development Administration) Oak Ridge Operations Office and Oak Ridge National Laboratory visited the site and conducted a screening survey. Results indicated no radioactivity above background in the areas utilized for the MED activities, with the exception of one small area of a wall in the hallway area that had slightly elevated (but below guidelines¹) levels. Paint was chipped from the surface, and analysis did not indicate levels significantly above background.

ELIMINATION ANALYSIS

The ORNL radiological survey of the plant found that radiation levels on all surfaces surveyed were typical of natural background for the area, with the exception of one small slightly elevated area that may have been due to natural radioactivity in structural materials. Therefore, no significant quantity of radioactive material from the MED operations remains at this site. All radiation levels are within standards for unrestricted release. Based on the information summarized in this report, DOE's Division of Facility and Site Decommissioning Projects has determined that no remedial action is necessary at this site and has eliminated the former site of Du Pont Grasselli Research Laboratory from further consideration under the Formerly Utilized Sites Remedial Action Program.

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).

REFERENCES

- o Oak Ridge National Laboratory, "Preliminary Survey of the Former Grasselli Research Laboratory of E.I. du Pont de Nemours and Company, Cleveland, Ohio," March 1980.
- o Roberson, Donald C., (Standard Oil Company of Ohio) to William E. Mott (Department of Energy), letter of June 23, 1980.

PRELIMINARY SURVEY OF THE FORMER GRASELLI
RESEARCH LABORATORY OF E.I. DUPONT DE NEMOURS AND COMPANY
Cleveland, Ohio

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

FORMER GRASSELLI RESEARCH LABORATORY
E.I. DUPONT DE NEMOURS AND COMPANY
Cleveland, Ohio

At the request of the Department of Energy (DOE, then ERDA), a preliminary survey was performed at a building now owned by Standard Oil Company of Ohio and located at 3092 Broadway Avenue in Cleveland, Ohio (see Fig. 1), on October 27, 1976, to assess the radiological status of those facilities utilized under Manhattan Engineer District (MED) contract during the early 1940s. The facilities (shown in Fig. 2) were owned by E.I. duPont de Nemours Company at the time contract work was performed. At that time, these facilities were known as Grasselli Research Laboratory. Information about the MED project and escort through the facility was provided by G. Spillan of SOHIO, E. A. Spearing of duPont, and F. W. Biehl of the Cleveland Regional Sewer District.

From information obtained in discussions and correspondence with Spearing, the project activities apparently involved chemical treatment of natural uranium slugs (2.5 x 15 cm cylinders) received from Battelle Laboratories and then returned to the University of Chicago after treatment. At the conclusion of the program, apparently the area was cleaned and the remaining uranium slugs were shipped to the University of Chicago. No information was available pertaining to the radiological status of the facility at the conclusion of the project.

Present Use of the Facility

The duPont Company sold the land and building to SOHIO in 1950. Since that time, SOHIO has leased the facility to the Cleveland Regional Sewer District, Cleveland, Ohio.

Results of Preliminary Survey

The preliminary survey was conducted by F. F. Haywood of the Oak Ridge National Laboratory and W. T. Thornton of the Department of Energy-Oak Ridge Operations Office (then ERDA). A survey of the entire three-story laboratory and bay complex was performed consisting of direct alpha measurements made on surfaces using a portable alpha scintillation

survey instrument and beta-gamma dose-rate measurements made at 1 cm from surfaces using a portable Geiger-Mueller survey meter. Additionally, an old paint scale sample was removed from a wall and analyzed for beta-gamma contamination in an area where an elevated reading was observed.

All survey measurements were within typical background levels for this region. The paint scale did not have beta-gamma activity significantly above background levels. Although no information is available about the radiological status of the facility at the time contract operations ceased, it is concluded that no additional measurements are required at this site.

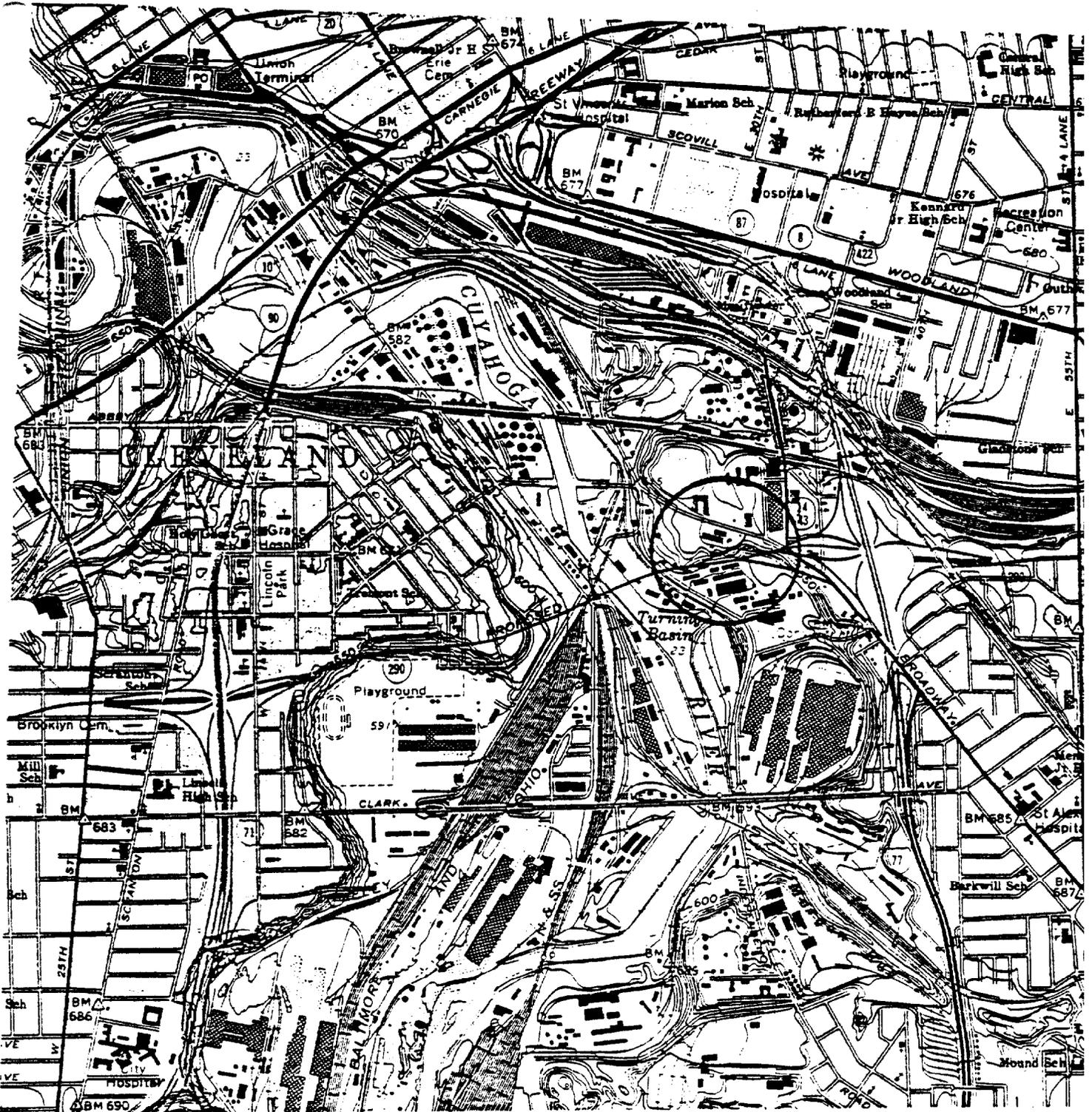


Fig. 1. Location of the former Grasselli Research Laboratory at the E.I. duPont Nemours and Company in Cleveland, Ohio.



Fig. 2. Photograph indicating (by arrow) location of laboratory facility.

File 9/24/81

*(Harris)
A. Cooper.*



THE STANDARD OIL COMPANY

MIDLAND BUILDING CLEVELAND OHIO 4411

June 23, 1980

Dr. William E. Mott, Director
Environmental and Safety Engineering Division
Department of Energy
Washington, D.C. 20545

M.S. E-201

Dear Dr. Mott:

We have reviewed the report you sent us describing the preliminary survey of the former Grasselli Research Laboratories located at 3092 Broadway Avenue, Cleveland, Ohio.

We concur with the findings that no further measurement is required at this location.

Very truly yours,

Donald C. Roberson

DCR:prc