



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
631 PARK AVENUE  
KING OF PRUSSIA, PENNSYLVANIA 19406

A-131

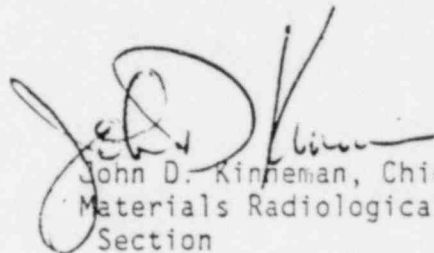
27 OCT 1981

Docket No. 40-0086

MEMORANDUM FOR: Robert Fonner, Attorney, OELD  
FROM: John D. Kinneman, Chief, Materials Radiological  
Protection Section  
SUBJECT: W.R. GRACE & COMPANY, POMPTON PLAINS, NEW JERSEY

As you requested, enclosed is a summary licensing history for this facility, as well as a history of site use provided by Mr. Willie of W.R. Grace & Company. The Region I file for License No. STA-422 is also enclosed.

If you have any questions regarding this material, please contact Ms. Campbell of my staff.

  
John D. Kinneman, Chief,  
Materials Radiological Protection  
Section

Enclosures: As stated

cc w/encls except file  
L. Higginbotham

W.R. GRACE & COMPANY  
Licensing History  
Pompton Plains, New Jersey

April 1, 1954

License R-132 issued to Rare Earths, Inc., Pompton Plains, New Jersey for possession and processing of unlimited quantities of source material in monazite sand.

January 24, 1957

License R-196 issued to the Davison Chemical Division of W.R. Grace & Company for possession of unlimited quantities of thorium-containing materials at both the Pompton Plains, New Jersey and Curtis Bay, Maryland sites.

November 22, 1961

License No. STA-422 issued to the W.R. Grace & Company to possess unlimited quantities of thorium at the Pompton, New Jersey site.

April 8, 1971

License application states that all processing of thorium materials had ceased.

February 28, 1973

License No. STA-422 expired.

July 31, August 1, 2, and  
September 20, 1974

Closeout inspection of License No. STA-422 indicates that an unknown quantity of waste products were buried on the property.

January 22, 1975

Property formerly licensed under License No. STA-422 released for unrestricted use.

HISTORICAL BACKGROUND OF THE POMPTON  
PLAINS, NEW JERSEY FACILITY OF THE DAVISON  
CHEMICAL DIVISION OF W. R. GRACE & CO.

Pursuant to a contract dated May 26, 1948 between Rare Earths, Inc. and the United States Atomic Energy Commission (A.E.C.), Rare Earths, Inc. obtained a license under the Atomic Energy Act of 1954 to possess, transfer, and use the radioactive material thorium which is defined by the U.S. Code as a "source material". In late 1956 or early 1957, this license was transferred to the Davison Chemical Division of W. R. Grace & Co. along with the assignment of the Contract issued by the A.E.C., and was in effect from the end of 1956 or from early 1957. The thorium was shipped to the Pompton Plains New Jersey plant of Rare Earths, Inc. (later Davison) as a component of monazite sand which was obtained from the A.E.C. Title to the monazite and the thorium remained in the government during the performance of work under the contract. According to the terms of the contract, at least 95% of the thorium was to be returned to the A.E.C., but the monazite gangue supposed to contain not more than 5% thorium was retained by the Company for disposition. This gangue was buried on the plant property under A.E.C. supervision at various depths.

At the expiration of the contract with the A.E.C. in June, 1956, monazite sands were purchased from foreign and domestic sources and processed to extract the so-called "rare earths" contained in the monazite for commercial sale. The A.E.C. license was changed to a "source material" license. All monazite gangue, now containing all of the thorium found in the sand, was continued to be buried at the plant site until April 30, 1971 when the plant was permanently closed.

In December, 1973, Davison Chemical engaged the service of Applied Health Physics, Inc. (AHP) to conduct a radiological survey of the entire property. Decontamination operations were begun by AHP on March 11, 1974 and continued through July 18, 1974. The goal of the work was to attain certain radioactivity limits as specified in regulations of the A.E.C. and the New Jersey State Department of Health for unrestricted use. A certified health physicist was engaged during the decontamination work as a consultant to Davison to recommend appropriate methods of removing and disposing of radioactive wastes and to provide an expert's opinion on the progress and course of decontamination, as well as to assure compliance with the regulations of the State of New Jersey and the A.E.C. A survey report, dated September 9, 1974 was sent to the A.E.C. (then Nuclear Regulatory Commission - N.R.C.) who's Region I Office of Regulatory Operations performed a confirmatory survey. In a letter dated January 22, 1975, the N.R.C. released the facilities for unrestricted use, provided that a notation be recorded in the appropriate land records indicating radioactive material has been buried on this property. This has been recorded in the land records in Passaic County.

During the entire operations of the plant, regulatory officials of the A.E.C. and the New Jersey Health Department periodically inspected the plant. Detailed records of quantities and exact composition of the buried wastes are not available. Since the operations were under close supervision by the A.E.C., one must assume that the maximum permissible annual burial curies were not exceeded.

On May 14, 1977, a fire of undetermined origin swept through the main building, heavily damaging the structure. Davison had about 2/3 of the remaining building razed and only restored the front 1/3 for office space. Some of the buildings were leased to Electro-Nucleonics, Inc. (ENI) soon after cessation of operations in July 1967, and the entire real estate was leased long-term to ENI in October 1979.

From the above it should be apparent that this entire business was operated under the continued supervision and with the regular approval of the U. S. Atomic Energy Commission and in conformity with then customary safeguards. This company has at all times, complied with the law and has been careful to coordinate all of its activities with the authorities.

The entire burial grounds are monitored at least twice a year by a Davison employee responsible for radiation monitoring. This employee is Mr. Armin Wille, Senior Facilities Engineer, W. R. Grace & Co., Davison Chemical Division, P.O. Box 2117, Baltimore, Maryland 21203. Telephone (301) 659-9093.