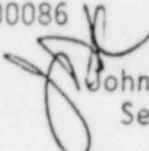


APR 1 1982

A-154

Docket No. 40-00086

License No. STA-422

MEMORANDUM FOR:  John D. Kinneman, Chief, Materials Radiological Protection Section

FROM: Myu Campbell, Radiation Specialist

SUBJECT: ORAU SURVEYS OF THE W. R. GRACE AND COMPANY FACILITY, WAYNE (POMPTON PLAINS), NEW JERSEY

On February 26, 1982, I met with Messrs. J. Berger and L. Cole of the Oak Ridge Associated Universities (ORAU) and Messrs. B. Mobley, R. Mace, and T. Tongue of the W. R. Grace and Company, and Messrs. R. Mandel and L. Zeeger of Electro-Nucleonics, Inc. (ENI) at the Electro-Nucleonics, Inc. facility in Wayne, New Jersey. This meeting was to provide the ORAU representatives with first hand information on site geography, and to brief the W. R. Grace representatives on the survey.

The ORAU representatives discussed the type of surveys which they plan to perform. Onsite, they plan to have a surveyor establish a reference grid. They will make measurements of surface radiation levels and collect surface soil samples over the entire property. They plan to use ground radar to identify culverts and burial pits. They will drill bore holes avoiding these features, for taking subsurface radiation measurements and earth samples. In addition, they plan to perform radon measurements inside the buildings.

The ORAU representatives also discussed the planned surveys along Sheffield Brook. They will measure surface radiation levels and take surface soil samples. They intend to use a hand auger to drill holes to measure subsurface radiation levels and take subsurface soil samples. The ORAU representatives are planning to perform the offsite surveys by the end of March and the onsite surveys by the end of June. They noted that some of the boreholes might have to be drilled next fall or winter if the ground becomes too soggy for the drill rig at the time of their survey. The ENI representatives mentioned that while some onsite areas get mushy, the stream area regularly floods, closing the Pompton Plains Crossing Road.

The W. R. Grace representatives expressed their concern that the surveys would generate negative publicity. They stated that W. R. Grace would prefer to make the first press release regarding the surveys. They noted that they were not even included in the distribution of the press release about the aerial survey. (This survey was arranged by the State of New Jersey, with EPA funding, NRC was not involved). I informed them that they would be contacted before the NRC made any press releases regarding their facility.

OFFICIAL RECORD COPY


Mr. Mandel of ENI described previous operations at the site to the ORAU representatives. Both he and the W. R. Grace representatives described the decontamination efforts made by W. R. Grace in 1974. The W. R. Grace representatives raised questions about the purpose of the ORAU surveys. I explained that the NRC is reevaluating all of the sites formerly licensed for thorium processing. The W. R. Grace representatives noted that the company plans to continue ownership of this property indefinitely and to restrict the use of the property. Mr. Mandel of ENI also described the waste water treatment system, which was installed in the late 50's. He agreed to contact the contractor who designed that system to obtain information on underground pipes at this site. The W. R. Grace representatives reiterated their concern that the burials not be drilled into, to avoid puncturing any lining which might be present in the burial pits.

The meeting concluded after a tour of the grounds for the benefit of the ORAU representatives.

I recommend that we make public notifications as soon as a date is chosen for the offsite surveys, in the following sequence. First, we should inform Congressman Roe. Second, we should allow W. R. Grace to make the initial contacts with local officials. We should follow this up as soon as possible with contacts of our own, and perhaps meet with those officials. We should then contact the people whose property borders on Sheffield Brook, to obtain permission for ORAU to perform surveys. I recommend that this last contact be made in person, so that we can perform preliminary surveys of the areas occupied by these individuals.

Original Signed By:

Myu Campbell
Radiation Specialist


RI:DETP
Campbell/gwc
3/24/82

A-158

Docket No. 40-00086

License No. STA-422

APR 1 1982

W. R. Grace and Company
Davison Division
ATTN: Mr. B. Mobley
Manager, Environmental Control
P. O. Box 2117
Baltimore, Maryland 21203

Gentlemen:

Subject: W. R. Grace and Company Facility in Wayne, New Jersey

This refers to the meeting between W. R. Grace and Company representatives and representatives of the Nuclear Regulatory Commission on March 25, 1982 in Silver Spring, Maryland.

As discussed during the meeting, NRC Region I plans to notify the appropriate Congressman and local officials in Wayne, New Jersey during the week of April 5, 1982 of our plans to perform radiological surveys of the Sheffield Brook. Enclosed is an advance copy of the letter, permission slip and historical summary which the owners of property along the Brook will receive during the same week.

Also enclosed is a copy of the outline for our follow-up discussions with the property owners. A press release regarding the survey, consisting of a brief explanatory paragraph attached to a copy of the package sent to each property owner, will be issued following receipt of the letters by the residents.

If you have any questions regarding our planned actions, you may contact Ms. M. Campbell or Mr. J. Kinneman of my staff.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By -

Ronald C. Haynes
Regional Administrator

Enclosures:

- 1. Letter to Property Owners
- 2. Discussion Outline

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*PDR
2004140425*

IEC1

cc w/encls:

Edward Heyman, General Manager, Advertising -
and Public Relations
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of New Jersey

bcc w/encls:

Region I Docket Room (with concurrences)
W. Crow, NMSS
K. Abraham, RI

MC
R1:DETP
Campbell/wb
4/1/82

Kinneman
R1:DETP
Kinneman
4/1/82

Joyner
R1:DETP
Joyner
4/1/82

Fort. Martin
R1:DETP
Fort. Martin
4/1/82

Abraham
R1:PAO
Abraham
4/1/82

Allan
R1:DRA
Allan
4/1

Haynes
R1:RA
Haynes
4/1

OFFICIAL RECORD COPY



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

LETTER TO PROPERTY OWNERS

Dear

The Nuclear Regulatory Commission is reviewing the status of a number of manufacturing facilities around the country which were formerly licensed by the Atomic Energy Commission (AEC). As you may know, a number of the facilities in northern New Jersey which used radioactive material in the 1940's and 1950's were later found to have residual onsite and/or offsite contamination. One of the facilities which was licensed by the AEC was Rare Earths, Incorporated, located at 868 Black Oak Ridge Road in Wayne, New Jersey. This company was licensed to extract thorium, a naturally-occurring radioactive material, from monazite sand. In 1957 these activities were taken over by the Davison Chemical Division of W. R. Grace and Company. A summary of the historical background of this facility is enclosed for your information.

To assist with our review of the W. R. Grace and Company facility, the State of New Jersey arranged for an aerial radiological survey of the area surrounding it in May, 1981. The survey was performed by EG&G, Inc. a contractor of the U. S. Department of Energy.

Our review of the results of the aerial survey indicates slightly elevated radiation levels along the Sheffield Brook. However, ground level surveys performed by inspectors from this office have shown no radiation levels above background along Black Oak Ridge Road, Pompton Plains Crossing Road, Farmingdale Road, Deerfield Road or Longport Road. Analysis of water samples from Sheffield Brook have shown no measurable radioactive contamination. The radiation levels measured by the aerial survey appear to be coming primarily from the overgrown area around the Brook. Although these radiation levels do not pose any immediate hazard to the health and safety of individuals living near or frequenting the areas around the stream, additional surveys and evaluations seem appropriate. The results of these surveys will be used to determine if additional actions are required.

We have arranged for an NRC contractor, Oak Ridge Associated Universities (ORAU), to perform these additional surveys. The survey of the area around the Brook will involve walking across the ground to measure surface radiation levels, and collecting surface and subsurface soil samples. The subsurface soil samples will be collected using a hand carried, motor operated drill which makes a 5" to 7" diameter hole about 2 to 3 feet deep, which afterward will be filled in. The survey will be performed primarily in the Brook and in the weeded area along the banks of the Brook, although measurements of surface radiation levels will be made in other areas, as well. The NRC contractor will not enter houses or buildings on properties included in this survey. The survey results will be made public.

The Township of Wayne has identified you as an owner of private property along Sheffield Brook. (Block No.). We request your permission to have the contractor, ORAU, perform radiological surveys of the type described in this letter on your property. The surveys will probably be performed during the last two weeks in April, depending on the weather and scheduling of other work. Please sign the enclosed permission form and return it in the enclosed envelope.

A representative of this office will visit you during the week of April 12, 1982, to answer questions you may have about the survey. If you wish to arrange a special time for our representative to visit you or if you have immediate questions, you may call this office collect, and speak to Ms. Myu Campbell (215-337-5246) or Mr. John Kinneman (215-337-5252).

Your cooperation with us is appreciated.

Sincerely,

Ronald C. Haynes
Regional Administrator

Enclosures:

1. Permission Form
2. Historical Background
3. Return Envelope

PERMISSION

I give permission to employees, contractor personnel, and agents of the U. S. Department of Energy and the U. S. Nuclear Regulatory Commission to perform a radiological survey on the property described below. I understand that this may involve disturbing some underbrush and vegetation, and will include drilling a few holes in the ground as described in the NRC letter dated _____, which transmitted this form. My restrictions on this permission are listed below.

Property Description:

Property Identified as Block _____
Lot _____

Restrictions:

Name

Signature by owner(s) of property
or authorized representative

Address

Telephone

W. R. Grace and Company
Historical Background

In approximately 1948, Rare Earths, Inc. began processing monazite sand at Pompton Plains, New Jersey, to extract thorium and rare earth elements. The work may have been conducted under contract with the Atomic Energy Commission (AEC). In 1954 the AEC issued a license authorizing the possession, transfer and use of source material (thorium) by Rare Earths, Inc. at this site. In 1957 this activity was taken over by the Davison Chemical Division of W. R. Grace and Company. The processing of monazite sand at this location ceased in 1971. The processing produced large quantities of wastes containing residual thorium. In 1974, W. R. Grace and Company hired a consultant to decontaminate the site to meet AEC criteria for release for unrestricted use. These criteria required that average radiation levels on the ground be less than 0.2 millirem per hour and maximum levels be less than 1 millirem per hour and that removable alpha contamination in the buildings not exceed 1000 disintegrations per minute (dpm) per 100 square centimeters. The facility was released by the Nuclear Regulatory Commission (NRC, which was established in 1974 to succeed the AEC) for unrestricted use on January 22, 1975, following a confirmatory survey. Documents supplied by W. R. Grace and Company in support of their request for release indicated that 1600 pounds of materials slightly contaminated with thorium were buried on the site in 1974 and that 19,000 pounds of thorium had previously been buried on the site.

In August 1980, the NRC requested that its Regional offices review specified formerly licensed facilities, including the W. R. Grace and Company (Rare Earths) facility in Wayne (Pompton Plains), New Jersey, to determine whether they met current criteria for unrestricted use.

In January 1981, an inspector from the NRC Region I office in King of Prussia, Pennsylvania, accompanied by a representative of the New Jersey Bureau of Radiation Protection, conducted a survey of the Rare Earths property. Based on measurements made at the site and analyses of soil samples in the NRC Region I Laboratory, it was concluded that surface soil contamination levels greater than current (1981) criteria for release for unrestricted use, and elevated radiation levels in excess of current criteria, exist on the site. These contamination and radiation levels do not presently result in a hazard to the health and safety of persons working at or living near the site. Further surveys and evaluations are scheduled for the summer of 1982. On September 10, 1981, an NRC inspector surveyed the interior of all buildings at the site and found that the buildings met current criteria for release for unrestricted use.

On May 25, 1981, an aerial radiological survey of this facility and the surrounding area was conducted by EG&G, Inc., at the request of the State of New Jersey.

The aerial survey identified one offsite area west of the site that exhibited radiation readings higher than normal background radiation levels. On November 23, 1981, a preliminary ground survey was performed by an NRC Region I inspector in this offsite area. The survey found normal background radiation levels in most areas, but radiation levels up to 0.2 millirem per hour were found in one area along Sheffield Brook which runs from the W. R. Grace and Company property towards the Pompton River. Background in this area of New Jersey is affected by the presence of natural uranium deposits, but averages about 0.02 millirem per hour or less. While radiation levels of the magnitude discussed above present no immediate hazard, more extensive surveys in the offsite area will be conducted in the spring of 1982 by Oak Ridge Associated Universities under contract with the NRC's Office of Nuclear Material Safety and Safeguards.

DISCUSSION OUTLINE

Proposed Dialogue with Owners of Properties along Sheffield Brook in Wayne, New Jersey.

I. Introduction of Speaker

II. Discussion of NRC Review of Formerly Licensed Sites

A. 1975 GAO audit recommended review

B. Types of Facilities under review

1. Thorium processors
2. Uranium processors
3. Byproduct materials processors

C. Contamination usually not related to compliance with regulations.

1. AEC restrictions on disposal and effluent releases implemented in 1959
2. Information on prior releases and disposal lost over time

III. Discussion of Survey Results

A. Wayne, New Jersey

1. aerial survey
2. water samples
3. soil samples

B. Comparison with survey results at other facilities

1. Expect no significant radiation levels in frequently occupied areas.
2. Expect negligible solubility of radioactive material.

- IV. Comparison of Potential Hazard with Non-radiological Hazards
 - A. Monazite naturally occurring
 - B. Review of Non-radiological Hazards
- V. Discussion of NRC Survey Plans
 - A. Measurements of Radiation Levels
 - B. Soil Samples
- VI. Questions

A-156

Docket No. 40-00086

License No. STA-422

April 6, 1982

W. R. Grace and Company
Davison Division
ATTN: Mr. B. Mobley
Manager, Environmental Control
P. O. Box 2117
Baltimore, Maryland 21203

Gentlemen:

Subject: W. R. Grace and Company Facility in Wayne, New Jersey

I have been briefed this afternoon by Ms. M. Campbell and Mr. Karl Abraham on their respective meetings today with Mr. Edward F. Heymann of your staff on the general subject of the upcoming ground surveys in Wayne, New Jersey.

Reflected against these discussions, I have re-read my letter to you of April 1, 1982 on this subject, and it appears that one aspect of it may have been misunderstood. Let me remove any possible misunderstanding.

We have informed you of our intended action as well as the State of New Jersey, and the public. This letter was a general notification to the public which was accomplished by means of the Nuclear Safety Information Center and the Public Document Room where we sent copies of our April 1 letter to you describing what is to be done shortly by the NRC staff and its contractors in the Wayne area.

My letter to you of April 1 was to inform you of our intended actions; not to solicit review or concurrence in the documents we have prepared to implement these actions. I regret any inconvenience this apparent misunderstanding caused you.

With regard to the proposed dialogue in the document titled "Discussion Outline" which was enclosed with my letter of April 1, this dialogue is what Ms. Campbell anticipates the property owners will want to talk about--based on several previous experiences Ms. Campbell has had in visits with property owners in other locations. I decided that preparations for these meetings with property owners will include gathering of this information and preparations to discuss this with them at such level of technicality and depth as they individually may desire.

I do want to reiterate that if you have any questions as to our statements of fact as to what we have decided to do in the next several

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W. R. Grace and Company

-2-

weeks, please contact Ms. M. Campbell or Mr. J. Kinneman of my staff.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By:

Ronald C. Haynes
Regional Administrator

cc:
Edward Heymann, General Manager, Advertising
and Public Relations
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of New Jersey

bcc:
Region I Docket Room (with concurrences)
W. Crow, NMSS
K. Abraham, RI

OFFICE >	RI:DETP	RI:DETP	RI:DETP	RI:DETP	PAO	DEP REG ADM	REG ADM
NAME >	MCampbell	JKinneman	JJoyner	TMartin	KAbraham	JAllan	RHaynes
DATE >	4/6/82	4/6/82	4/6/82	4/6/82	4/6/82	4/6/82	4/6/82

A-158

Docket No. 40-00086

APR 8 1982

License No. STA-422

Township of Wayne
ATTN: The Honorable Walter Jasinski
Mayor
475 Valley Road
Wayne, New Jersey 07470

Dear Mayor Jasinski;

Subject: Proposed Surveys of the Sheffield Brook

Enclosed for your information is a copy of a letter sent by the Nuclear Regulatory Commission to the owners of properties bordering the Sheffield Brook between Black Oak Ridge Road and the Saddle River. The letter and its enclosures are self explanatory.

A copy of the enclosed letter has also been provided to Congressman Roe.

If you have any questions regarding this letter, please contact John D. Kinneman or Myu A. Campbell of my staff at (215) 337-5252.

Sincerely,

James H. Joyner, Chief
Technical Programs Branch

Enclosures: Letter to Property Owners

cc w/encl:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of New Jersey

bcc w/encl:
Region I Docket Room (with concurrences)
K. Abraham

PDR

8204140249

1207

OFFICE	RI:DEFP	RI:DETP	RI:DETP				
SURNAME	Campbell/grd	Kinneman	Joyner				
DATE	4/8/82	4/8/82	4/8/82				