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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 11, 1995

The Honorable Robert W. Ney
United States House of
Representatives
Washington, DC 20515-3518

Dear Congressman Ney:

I am responding to your letter of July 18, 1995, in which you suggest that an aerial survey be used to identify offsite properties contaminated with radioactive slag from the processing of radioactive source material at a facility in Byesville, Ohio. Your letter also states that the use of this slag in the construction of a home has caused radon levels, in a second-floor bedroom, in excess of the U.S. Environmental Protection Agency's (EPA's) action level of 4.0 pCi/l, and that other similar situations may exist.

We share your concerns about the offsite contamination and the need to identify the extent of contamination and to take actions to ensure that the public is not exposed to levels of radioactivity that are potentially harmful. The NRC does not believe that the offsite slag poses an immediate or significant health and safety risk to members of the public.

With respect to radon levels in excess of EPA's action level of 4.0 pCi/l, the U.S. Nuclear Regulatory Commission has not seen any data indicating radon levels above the EPA limit in upstairs living areas of homes. Our data do show radon slightly above the EPA limit in basements. However, elevated radon levels in basements are not uncommon. The homes that we have detected with radon in excess of the action level are being addressed on a case-by-case basis, whether these elevated levels are caused by slag or not, as a part of our review of this issue.

On July 28, 1995, our staff contacted David Heil of your staff, requesting additional details on the particular home mentioned in your letter, where radon in an upstairs bedroom was above 4 pCi/l. Mr. Heil provided the name, address, and telephone number of residents of that home. Our Region III office spoke with Mr. Ed Malernee on July 31, 1995. He said that a contractor from Columbus, OH has installed a radon abatement system in their home after the results of the radon testing. The work was completed about two months ago. Recent charcoal and electronic tests showed the radon to be less than 4 pCi/l. The former owner of the Byesville facility, Cyprus Foote Mineral (CFM), has implemented a survey/follow-up program to determine the extent of offsite contamination. This program includes providing a radon test kit to residents where slag has been found around the foundation of the home, and in the event that the radon levels exceed the EPA limit, an independent contractor will conduct radon abatement for the home. The work described above in the Malernee home was part of this CFM program. NRC is committed to review the implementation of the CFM program.

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With respect to the history of NRC efforts to detect offsite contamination, we had some indications, in 1989, that slag had been distributed for construction purposes offsite. This was based on an inspector observing a posted sign at the facility that said "No slag today" and subsequently being informed by a facility guard that slag distribution to local entities was practiced. However, licensed source material had not been used at the facility since 1972 and the current owner, Shieldalloy (SMC), indicated that only fresh slag (from unlicensed activities) was sold. SMC discontinued the distribution of slag to local entities around 1989. SMC continues to sell fresh slag to the steel industry today.

NRC did not have hard evidence that slag with elevated levels of radionuclides was present at offsite locations until December 1993. Licensed source material slag was not found offsite until April 1994. Since that time, NRC has: (1) held an open meeting in May 1994 in Cambridge, Ohio, with the former licensee (CFM) that sold the contaminated slag for offsite use; (2) conducted a scoping survey with our contractor at 54 locations in the Guernsey County area in June 1994; (3) had a technical meeting with CFM at the NRC Region III office in September 1994; (4) held a public meeting in Cambridge, Ohio in November 1994; (5) reviewed and overseen the CFM Phase I and Phase II Work Plans for identifying contaminated locations and the hazards associated with them; and (6) started planning another public meeting for the fall of 1995. CFM has: (1) placed local newspaper ads requesting information on offsite contamination; (2) provided a toll free number for local residents; and (3) issued press releases, in an effort to identify contaminated areas. We are aware that the total extent of offsite distribution has not been fully characterized because we have focused on residential properties, where the risk, if any, would be greatest. To date approximately 100 private residences have been surveyed. Additional work is yet to be done.

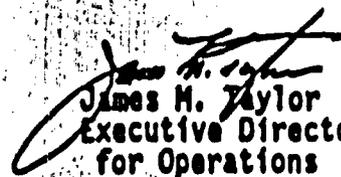
With respect to aerial surveys, a radiological aerial survey will not detect the primary radionuclide contaminant, ^{230}Th , which is an alpha emitter with a low-energy, low-abundance gamma ray. Alpha particles are not detectable from the air. The gammas associated with the actinide series are generally low-energy and also difficult to detect. In addition, the slag is generally covered by limestone or other rock that provides shielding. We have discussed the use of aerial surveys for this effort with the U.S. Department of Energy (DOE), and concluded that it is not feasible. We believe that if DOE had known the specifics for the contamination in the discussions you refer to, it would not have indicated that an aerial survey was appropriate. Our discussions with DOE indicate that a van survey might be a more appropriate technology to use, and this will be considered for the Guernsey County area.

The Honorable Robert W. Ney

-3-

In accordance with your request, we are placing you on our distribution list for our onsite and offsite activities for this project. I trust that this letter responds to your concerns.

Sincerely,


James H. Taylor
Executive Director
for Operations

cc: Shieldalloy, Cambridge dist. list

BOB NEY

18th District Ohio

1000 Commonwealth Bldg

Washington, DC 20515

(202) 270-8700

(202) 270-2304 FAX



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**Congress of the United States
House of Representatives
Washington, DC 20515-3518**

July 18, 1995

Dr. Ivan Selin, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket No. 040-07397
Docket No. 040-06940
Docket No. 040-08948

Dear Chairman Selin:

I have been contacted by a number of my constituents in the 18th District of Ohio concerning the presence of radioactive slag on public and private property in the District. Some of the material is known to have come from the processing of radioactive source material at a facility in Byesville, Ohio, near Cambridge, under one or more of the above-referenced docket numbers.

The use of this radioactive slag in the construction of a home occupied by one of my constituents has caused radon levels in excess of U.S. EPA's action level of 4.0 pCi/l in the second floor bedroom of one of their children. There is at least a reasonable possibility that other similar situations exist (See, Addendum to NRC Inspection Report 999-90003/94044). This is direct evidence of a significant public health and safety concern. It is very uncertain how many more of my constituents may be directly or indirectly affected by this material.

I am concerned by the fact that the NRC has had at least constructive knowledge of the release of off-site use of radioactive slag from this NRC licensed facility since March, 1989. Yet it appears that the NRC still has not determined the extent of the off-site contamination.

It is my understanding that an aerial radiological survey is the only practicable means available to identify those off-site properties which have been contaminated with radioactive slag from this NRC-licensed facility. Preliminary technical discussions I have had with the DOE's contractor operating the Remote Sensing Laboratory indicate that the cost for such a survey of an area 40 miles square (40 mi. x 40mi.) would be approximately \$2 million. Given the data quality objectives necessary to define the extent of contamination, the lack of feasible alternatives, the potential public health threat and the overall remediation costs for the off-site contamination, I believe it is a small price to pay to properly deal with this situation. I strongly believe that we need an aerial survey to help ensure the general health and safety of the residents of this County.

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2701 Belmont Street
Room 804
Bellaire, OH 43026
(614) 876-1900
(614) 876-1903 FAX

300 Market Street
Room 818
Stuyvesant, OH 43083
(614) 233-3750
(614) 233-1975 FAX

Milton-Fairfield Building
197 2nd Street, NE
New Philadelphia, OH 44663
(216) 364-6380
(216) 364-7875 FAX

225 Underwood Street
Suite 4000
Zanesville, OH 43701
(614) 452-7023
(614) 452-7191 FAX

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page 2.

Please contact my Legislative Director, Dave Heil, if you have any questions regarding this or any related matter. Also, I would appreciate it if you would see to it that I am placed on the distribution list concerning the NRC's on-site and off-site activities with respect to the above-referenced docket numbers. Thank you for your attention to this problem. If I can ever be of assistance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Ney", written in a cursive style.

Bob Ney
Member of Congress

RWN/mjh
cc: Mr. & Ms. Malenec