



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
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April 5, 2004

Jill Lipoti, Ph.D.
Assistant Director, Radiation Protection Programs
New Jersey Department of Environmental Protection
P.O. Box 415
Trenton, NJ 08625-0415

**SUBJECT: FORMER GLOUCESTER ENVIRONMENTAL MANAGEMENT SERVICES
LANDFILL (GEMS Landfill)**

Dear Dr. Lipoti:

In response to your letter dated November 26, 2003 to Mr. Hubert Miller, Regional Administrator, U.S. NRC Region I, our staffs met on January 12, 2004 to discuss your concerns regarding the characterization of uranium in groundwater at the GEMS Landfill. You had requested NRC involvement to provide information that might be helpful in determining the origin of the material and the quantity of material that may have been disposed at the GEMS Landfill. You suggested that we review the available radioactive isotopic data to make an assessment of NRC licensees that may have generated waste with similar isotopic ratios.

During the January 12 staff meeting, we agreed to assess the uranium data to determine if the material was natural, depleted or enriched uranium, and then conduct a defined search of NRC records, which might identify NRC licensees that operated with this type of uranium in New Jersey and surrounding States. The enclosed summary identifies the topics discussed at the meeting, and the results of our assessment of the uranium isotopic data based on the records provided by your staff during and following this meeting. We have concluded that the available data indicates that the material is natural uranium, and that the concentrations reported for some of the wells are above the background levels for natural uranium.

Our next action is to complete the search and review of records that will focus on NRC licensees authorized to possess natural uranium. Mr. John Hickman, from the Division of Waste Management and Environmental Protection, Office of Nuclear Materials Safety and Safeguards is conducting this review and expects to be completed within one month.

Mr. Hickman will provide the results of the record search to you, and is available at (301) 415-3017 for questions regarding this matter.

Sincerely,

/RA/

George Pangburn, Director
Division of Nuclear Materials Safety

Enclosure:
Meeting Summary

cc w/encl:
Patricia Gardner, Chief, Bureau of Environmental Radiation

J. Lipoti
State of New Jersey

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bcc w/encl:
D. Gillen, NMSS
M. Thaggard, NMSS
J. Hickman, NMSS
D. Screnci, OPA
N. Sheehan, OPA
R. Bores, RSLO
R. Prince, RI

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