

ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION
ENERGY/ENVIRONMENT SYSTEMS DIVISION

July 18, 1994

Mr. John Lentz
Project Manager
Materials Decommissioning Section
U.S. Nuclear Regulatory Commission
Mail Stop T7-F27
Washington, D.C. 20555-0001

SUBJECT: COMMENTS ON THE PROPOSED WATER SAMPLING AT THE ALCOA INDUSTRIAL LANDFILL, CLEVELAND, OHIO (DOCKET NO. 040-00501)

Dear Mr. Lentz:

The Environmental Survey and Site Assessment Program (ESSAP) of ORISE has reviewed the NRC's request for technical assistance (RFTA #94-030) for water sampling and analysis at nine existing groundwater monitoring wells at the Alcoa Industrial Landfill, in Cleveland, Ohio. ESSAP has also reviewed the groundwater sampling protocol supplied by Alcoa and offers the following comments for your consideration:

- 1) Page 6 of the groundwater sampling protocol states that "in the event that a well does not have sufficient recharge for immediate sampling, only one well volume is purged from the well." The RFTA states that 3 well volumes be purged.
- 2) Page 8 of the groundwater sampling protocol states that sampling equipment will be thoroughly cleaned before placement in each well. It may be appropriate, based on the history of these wells (i.e., did previous sampling efforts identify radioactivity in the wells?), to collect a rinsate sample to evaluate the potential of cross-contamination. The frequency of such sampling, if appropriate, should be specified.
- 3) How will field/equipment blanks be collected to check for procedural or ambient contamination from field activities?
- 4) It would be beneficial to have the well construction data, including well diameter and depth, for each of the wells.

It is ESSAP's understanding that Alcoa will select a contractor to perform groundwater sampling in accordance with an agreed upon groundwater sampling protocol. ESSAP will provide an

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individual experienced in groundwater sampling to provide oversight during the groundwater sampling procedure. This oversight will ensure that the contractor performs groundwater sampling in accordance with the approved sampling plan, with particular attention paid to quality assurance procedures.

ESSAP will require 4 liters of water from each monitoring well to perform the necessary analytical analyses. No sample preservation will be necessary. Each sample will be labeled in accordance with the ESSAP Survey Procedures Manual (Revision 8, December 1993) and a chain-of-custody form completed. Field/equipment blanks and/or rinseate samples will also be collected.

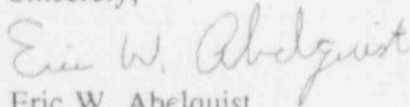
ESSAP will analyze each water sample for gross alpha and gross beta activities and perform wet chemistry analyses to determine isotopic concentrations of radium, thorium, and uranium. Analytical and field survey activities will be conducted in accordance with procedures from the following documents of the Environmental Survey and Site Assessment Program:

- Survey Procedures Manual, Revision 8 (December 1993)
- Laboratory Procedures Manual, Revision 8 (August 1993)
- Quality Assurance Manual, Revision 6 (July 1993).

A letter report, including analytical results and description of the field sampling oversight activities, will be submitted within 30 days from the receipt of the water samples in the ESSAP laboratory.

Please direct any questions that you may have concerning the subject comments to me at (615) 576-3740 or Jack Beck at (615) 576-5031.

Sincerely,



Eric W. Abelquist
Project Leader
Environmental Survey and
Site Assessment Program

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