30-18276



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

MAY 2 4 1993

Mr. Erwin J. Odeal Executive Director Northeast Ohio Regional Sewer District 3826 Euclid Avenue Cleveland, Ohio 44115-2504

Dear Mr. Odeal:

SUBJECT: NORTHEAST OHIO REGIONAL SEWER DISTRICT/SOUTHERLY WASTEWATER TREATMENT PLANT - SAFETY ANALYSIS REPORT

I am responding to the <u>Safety Analysis Report</u>, (SAR), dated April 30, 1993, prepared by Dames & Moore, in connection with the ash lagoon removal program at the Northeast Ohio Regional Sewer District's Southerly Wastewater Treatment Plant (NEORSD/SWTP). The following are our comments:

Page 1-1, Section 1.0 Introduction, Paragraph 1

Please explain the meaning of(EGG - Energy Measurements, April, 1992). If this is a reference, please include in Section 7.0 REFERENCES. In general, the references are not completely identified.

Page 1-1, Section 1.0 Introduction, Last Paragraph

Page 1-1, last sentence, and page 1-2, first sentence, discuss sediment and water samples from the North and South Fill Areas taken by the Oak Ridge Institute for Science and Education (ORISE). The only sediment and water samples listed in that report were from the Cuyahoga River, the canal to the river, the sanitary ponds, and the swamp north of the North Fill Area. There were none from the fill areas.

Page 1-2, Section 1.0 Introduction, Paragraph 2

The first sentence states that the Nuclear Regulatory Commission based its conclusion, on when the contaminant reached the plant, on ORISE results. The NRC also considered reviews of sewer district records and interviews of employees.

Page 1-2, Section 1.0 Introduction, Paragraph 3

The last sentence states that the SAR projects potential exposure for normal and abnormal conditions. We feel the SAR does not address the scenario of a find of a pocket of a very high concentration of cobalt-60 significantly in excess of the levels discussed in the SAR. The document should provide the direct radiation level and cobalt-60 concentration in ash at which work would be stopped, and the risk to the public and workers should be re-evaluated.

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Mr. Erwin J. Odeal

Page 2-1, Section 2.1, Paragraph 3

Figure number should be 2 instead of 3. This appears to be a typographical error. Please provide information pertaining to flood - elevation, frequency, flood plain delineation, and related data for the site.

Page 2-3, Section 2.3, Paragraph 1

The description of perched water layer is not clear. What is the name of the report which contains the data for the borings performed in 1973? Please include in the reference.

Page 3-3. Section 3.2 Unusual Occurrence Response

Flooding may be an unusual occurrence. What are the proposed precautions to prevent breached berms, flooded lagoons, and downstream transport of radionuclides by flood waters?

Page 4-1, Section 4.2 Potential Exposures to Workers On-Site

The phrase in the last line, "...inhalation of direct...", appears to be "...inhalation and direct..."

Page 4-2, Section 4.2.1 Inhalation Doses, Equation (4-1)

The value of DF (Dose Factor) for inhalation in the Equation (4-1) should be 219 mrem/ μ Ci, instead of 190 mrem/ μ Ci (See Federal Guidance Report No. 11, Table 2.1).

Page 4-4. Section 4.3 Potential Inhalation Exposures to the General Public. Paragraph 3

Assuming 98 percent of the material remains suspended at the site boundary, the inhalation dose at the site boundary is projected as 73.5 (0.98x75) mrem (not 1.5 mrem), plus essentially zero dose from direct radiation exposure. Wind rose data may not be conservative for the months of excavation, since 10.1 percent is yearly average.

Paragraph 4, last sentence states that the maximum exposures will be less (0.04 mrem). Please show the calculations.

Mr. Erwin J. Odeal

As you suggested, in the interest of saving time, a copy of this correspondence is being directly sent to Mr. T. G. Adams of B. Koh & Associates. If you have any questions, please contact Sam Nalluswami of my staff at (301) 504-2502.

Original Signed By

John H. Austin, Chief Decommissioning and Regulatory Issues Branch Division of Low-Level Waste Management and Decommissioning Office of Nuclear Material Safety and Safeguards

cc: Mr. T. Adams, B. Koh & Assoc.

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