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B. KOH & ASSOCIATES, INC.

*Environmental Restoration
Radioactive Waste Management*

Principal Office
10211 A South Dolfield Road
Owings Mills, Maryland 21117-3653
Telephone: (410) 356-6612
FAX: (410) 356-4213

New York Office
11 West Main Street
Springville, New York 14141-1012
Telephone: (716) 592-3431
FAX: (716) 592-3439

May 23, 1994

Mr. John Austin, Chief
Low-level Waste and Decommissioning Projects Branch
Division of Waste Management
Office of Nuclear Material Safety and Safeguards
US Nuclear Regulatory Commission
11555 Rockville Pike
Washington, DC 20555-0001

Subject: Construction of Northeast Yacht Club Road - Northeast Ohio Regional
Sewer District, Easterly Wastewater Treatment Plant

Dear Mr. Austin:

On behalf of the Northeast Ohio Regional Sewer District (NEORS), this letter has been prepared to present the status of the survey and sampling efforts undertaken by the NEORS to support the construction of the subject roadway.

In summary, the following surveys and sampling activities were performed on the roadway area:

Pre-Remediation Survey and Sampling

- 1) A 100% surface scan walkover of the roadway area using a calibrated 2 inch x 2 inch NaI (TI) probe with a Ludlum Model 12 survey rate meter was performed. An independent 100% verification surface scan was performed by NRC Region III and Cuyahoga County Department of Health representatives using similar survey instrumentation. Elevated areas were flagged and the areas subsequently remediated. Remediation consisted of removal of small particles of contamination. The contaminated particles were screened by the onsite NRC mobile laboratory and confirmed to be Cobalt 60.

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- 2) Five (5) exposure rate measurements were obtained from each 10m x 10m grid block within the roadway area using a calibrated Ludlum Model 19 uR meter. Exposure rates within each grid block were less than 5 uR/hr above background (3 uR/hr) at 1 meter above the surface.
- 3) Four surface soil samples were collected from each 10m x 10m grid block within the roadway area. A composite sample was formed from the four samples and screened by the NRC mobile laboratory. Results indicated that the majority of the composite samples contained less than 1 pCi/g of Cobalt 60.

Post Remediation Survey and Sampling

- 1) Construction of the new roadway requires that surface soil be removed to a depth of about 2 feet. Since some contamination was discovered in the pre-remediation survey, a special excavation procedure was used. Soil was removed from the entire roadway area (39 grid blocks) and placed in the northwest corner of the Easterly Site. This soil will be graded to approximately a depth of 1 foot, scanned using a 2 inch x 2 inch NaI (TI) probe and Ludlum Model 12 survey rate meter, elevated areas identified and remediated, if necessary, and then covered with at least 4 inches of soil and revegetated.
- 2) A 100% surface scan walkover of the excavated roadway area was performed using the survey instrumentation previously described above. An independent 100% surface scan was performed by NRC Region III representative. A small number of elevated areas were identified and remediated. The roadway area currently reads less than one and a half times background.
- 3) Five exposure rate measurements were taken from each 10m x 10m grid block within the roadway area. Exposure rate measurements within all grid blocks were less than 5 uR/hr above background (3 uR/hr) at one meter above the surface.
- 4) Four surface samples from each 10m x 10m grid block were collected from within the roadway area. A composite sample was formed from the four surface samples. These samples have been packaged for analysis.
- 5) One borehole was drilled within each 20m x 20m grid block contained in the roadway area. A total of 10 boreholes were drilled to an average depth of 10 feet. Samples of the surface and subsurface were collected at 2 foot intervals using a split spoon sampler. Scans of the 2 foot split spoon core samples using a 2 inch x 2 inch NaI (TI) probe and Ludlum Model 12 survey rate meter indicated all core samples to be indistinguishable from background (2800 cpm). Down hole gamma logging using a 2 inch x 2 inch NaI (TI) probe and Ludlum 12 survey rate meter was also performed at 6 inch intervals down to 3 feet within

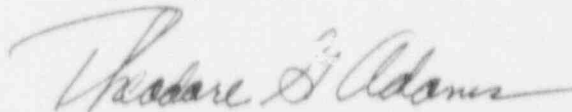
each borehole. Results of downhole gamma logging indicated no appreciable activity. All results were within normal background levels.

- 6) A comparison of the depth of the fill encountered during the drilling (approximately 10 feet) was made to available aerial photographs and other related NEORSR documentation. The drilling effort confirmed that the elevation of the existing roadway area is the same as the original elevation (i.e. pre 1935). In addition, this information supports that there is no deep disposals of contaminated grit. Thus, it is concluded that the contamination originally identified in the roadway area was shallow (less than 2 feet) and was effectively removed by the 1 - 2 foot excavation of the contaminated area.

Based on the above presented information, it is concluded that the area comprising the Northeast Yacht Club roadway has been adequately characterized with respect to the nature and extent of contamination. In addition, any contamination identified within the roadway area has been removed and the area surveyed and verified that no significant contamination currently exists. Therefore, it has been concluded by the NEORSR that the roadway area is ready for construction. Construction is scheduled to commence on May 23, 1994.

If you have any questions, please don't hesitate to give me a call at (716)592-3431.

Very Truly Yours,



Theodore G. Adams
Project Manager
NEORSR Project

cc: E. Odeal, NEORSR
T. Lenhart, NEORSR
D. Klunzinger, NEORSR
G. Shear, NRC Region III
B. Koh, B. Koh and Associates, Inc.