



SHIELDALLOY METALLURGICAL CORPORATION

40-7102

February 5, 1993

Mr. Yawar H. Faraz
Mail Stop 6H-3
Advanced Fuel & Special Facilities Section
Fuel Cycle Safety Branch
Division of Industrial & Medical Nuclear Safety
Office of Nuclear Material Safety & Safeguards
U.S. Nuclear Regulatory Commission
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Return Receipt Requested

RE: Shieldalloy Metallurgical Corporation (SMC) Groundwater
Monitoring Program for Radionuclides

Dear Mr. Faraz:

Pursuant to Mr. John W. N. Hickey's letter dated January 14, 1993 enclosed please find the requested results of the quarterly radiochemical analysis of the SMC groundwater monitoring program. SMC has conducted these analyses since December 1988 as a result of the 1988 Administrative Consent Order (ACO) between SMC and the New Jersey Department of Environmental Protection and Energy. The Radiochemical Groundwater Report of August 2, 1991 for the second quarter of 1991 provides a summary of the program's previous groundwater sampling and analysis.

The subject monitoring program has been conducted subject to the following paragraphs of the 1988 ACO:

- 20.g. 1. *Wells W2; SC 11S, SC 12S, SC 13S, A, W3 (shallow) will be sampled quarterly for the first two calendar years following the date of execution of this Administrative Consent Order, and thereafter in accordance with subparagraph (c) of the paragraph.*
- (a) *For the first four quarters the ground water samples will be filtered in the field and both fractions analyzed for gross alpha activity. In the event that in any samples either the filtered solids or the filtrate indicate a level of gross alpha activity in excess of 5 picocuries per litre, that sample will be further analyzed for the radionuclides U-238; U-235; U-234; Th-232; Th-228; Ra-226:*
- (b) *After the first four quarters the results of the analyses will be reviewed jointly by the Department and Shieldalloy to determine*

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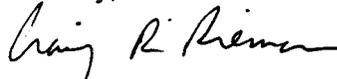
Mr. Yawar H. Faraz
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desirable and a decision will be made before the collection of the fifth series of quarterly samples whether or not to filter all subsequent samples in the field. The Department's decision shall control. If the decision is not to filter subsequent samples in the field, then the analytical program will continue based on total activity.

- (c) *Quarterly sampling shall continue as specified in a and b above until four (4) consecutive quarterly samples results from all monitor wells show radioactivity less than 5 picocuries/litre unless Shieldalloy can show, to the satisfaction of Department, based on a comparison of sample results from upgradient and downgradient monitor wells, that the radioactivity is attributed to natural background conditions. If it is shown, to the Department's satisfaction, that radioactivity in excess of 5 picocuries/litre is attributed to natural background conditions or that no sample results exceed 5 picocuries/litre, then sampling will be reduced to a frequency of once a year. Samples collected at the yearly frequency shall be analyzed for gross alpha and beta activity and shall be analyzed for the specific isotopes referenced in subparagraph a above in the event that the level of gross alpha activity of the ground water exceeds 5 picocuries/litre.*

If you have any questions regarding this submittal please contact me.

Sincerely,



Craig R. Rieman
Radiological Safety Manager

CRR:lms
Enclosure

CC: Steven N. Rappaport
Michael A. Finn
Richard D. Way
David R. Smith
Jay E. Silberg
Carol D. Berger