



State of New Jersey

Department of Environmental Protection

James E. McGreevey
Governor

Bradley M. Campbell
Commissioner

October 25, 2004

Allen D. Roos, Project Manager
U.S. Army Corps of Engineers
100 West Hunter Avenue
Maywood, NJ 07607

Re: Various Ground Water Documents
Wayne Interim Storage Site
Wayne Township, Passaic County

Dear Mr. Roos:

The New Jersey Department of Environmental Protection (NJDEP) is in receipt of the following ground water documents regarding the Wayne Interim Storage Site.

- Amended Long-Term Ground Water Monitoring Plan
Addendum for USACE In-House Sampling
June 6, 2003
- Draft First Semi-Annual Long-Term Ground Water Monitoring Report
April 2002 Sampling Event
June 2003
- Draft Second Semi-Annual Long-Term Ground Water Monitoring Report
December 2002 Sampling Event
June 2003
- Draft-Final Long-Term Ground Water Monitoring Report
June 2003 Sampling Event
August 2003
- Draft Long-Term Ground Water Monitoring Report
December 2003 Sampling Event
May 2004
- Draft Long-Term Ground Water Monitoring Report
June 2004 Sampling Event
September 2004

Upon review of these documents NJDEP has the following general and specific comments.

General Comments

These general comments apply to all of the Long Term Ground Water Monitoring Reports.

- YIELD TO AVOID UNNECESSARY IMPACTS ON THE ENVIRONMENT
2004 6 100

1. Section 2.0 – Regulatory Guidelines

It is stated that “The Federal Maximum Contaminant Level (MCL) for total uranium was not promulgated at the time the WISS ROD was signed.” While this statement is true, the Reports should mention the recently promulgated Federal MCL of 30 µg/L total uranium. Comparisons of the MCL to the monitoring results should be made in the text and Tables of the Reports to demonstrate the protectiveness of the remedial action. Refer also to related Comment No. 4, below.

2. Section 3.0 – Sampling Locations...

- a) Three monitoring wells are identified as WISS-1S, WISS-2S and WISS-3S (page 3-1 and the Tables) and also as LTM-1S, LTM-2S and LTM-3S (page 1-4 and the Figures). Consistent nomenclature for the wells must be used throughout the Reports to avoid confusion.
- b) The monitoring wells that are designated as background wells must be identified, so that background concentrations of the nuclides of concern can be determined. Each Report must include a section that compares the monitoring results to background concentrations.

3. Section 4.0 – Analytical Data and Interpretation of Results

- a) In the First Semi-Annual Report, it is stated that a conversion factor of 0.3365 pCi/µg was used to calculate total uranium, which is acceptable. However, when this factor is applied to the current Federal MCL of 30 µg/L for total uranium, the resultant value is approximately 10 pCi/L, not 20 pCi/L as cited here. This correction should be made in the Reports. If this is not how the value is being calculated, then an alternative explanation should be provided.
- b) The discussion of conversion factors and the MCL for total uranium is not present in the subsequent Reports. This information should appear in all of the Reports, including the text and Tables.

4. Tables

All affected Tables must be revised to address these comments.

5. Electronic Data Deliverables

All of the ground water data generated to date must be submitted to NDJEP in the Hazsite electronic data format. Detailed information on Hazsite is available on NJDEP's website at <http://www.state.nj.us/dep/srp/hazsite>.

Specific Comments

These specific comments apply to the individual Long Term Ground Water Monitoring Report identified.

Long-Term Ground Water Monitoring Plan-Addendum for USACE In-House Sampling

6. Attachment B, Quality Assurance Project Plan

In NJDEP's letter dated February 26, 2003, concerns were raised regarding the laboratory contract. In question was whether the contract would be reviewed periodically to examine matters such as the overall suitability of the laboratory, performance on proficiency testing samples, as well as if the laboratory data quality is not consistently acceptable, then what mechanisms exist to manage a possible problem. These issues remain to be addressed in this addendum, and are still considered to be an important issue, especially in light of the issues raised by USACE in the Second Long-Term Monitoring Ground Water Monitoring Report. USACE must discuss how these details of the laboratory contract will be monitored.

Second Semi-Annual Long-Term Ground Water Monitoring Report (December 2002 Data)

7. Section 3.0 – Sampling Locations..., page 3-1

It is stated that well WISS-1S was "influenced by surface water runoff." A better explanation must be provided (i.e., well was inundated by surface water under the cap, through cracked or broken casing, etc.). In addition, a description of all corrective and preventative measures to avoid future problems must be provided.

8. Section 5.1.9 – Radionuclide Quantitation and Detection Limits, page 5-2

Was the problem of the "possible background shift" or "improper background subtraction" investigated further? If so, then this information must be included in the Report. The qualification of almost 30% of the analytical results is troublesome.

9. Table 8

Was the "major discrepancy" footnoted in Table 8 investigated further? How does this affect the analytical results?

Long-Term Ground Water Monitoring Report, June 2003 Sampling Event

10. Section 3.0 – Sampling Locations..., page 3-1

Again it is stated that well LTM-1S (WISS-1S) was "influenced by surface water runoff." A better explanation must be provided (i.e., well was inundated by flood waters,

casing was cracked). In addition, a description of all corrective and preventative measures to avoid future problems must be provided.

11. Section 4.1.3 – Total Uranium, page 4.2, Table 4 and Appendix A

The total uranium units on the Certificates of Analysis are reported improperly. Method ASTM D5174 results in mass per volume data, therefore, data should be reported as $\mu\text{g/L}$. Page 4-1 and Table 4 must be revised to reflect this error.

Long-Term Ground Water Monitoring Report, June 2004 Sampling Event

12. Section 4.1 – Radioactive Parameters, page 4-1

The report states that beta results are of no concern to this project, and are not reported. This sentence should be changed to read "Gross beta results were all below the USEPA screening level of 50 pCi/L and are therefore not depicted in the tables of this report."

13. Section 4.1.1 - Gross Alpha Activity, page 4-1

Since the preparation of the sample for gross alpha activity requires evaporation, it is assumed that all radon is driven off. The discussion about correcting for radon should be deleted.

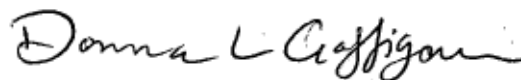
14. Section 4.1.3 - Total Uranium, page 4-2, Table 4 and Appendix A

The total uranium units on the Certificates of Analysis are reported improperly. Method ASTM D5174 results in mass per volume data, therefore, data should be reported as $\mu\text{g/L}$. The text and Table 4 must be revised to reflect this error.

In addition to submitting the data in electronic format, USACE shall submit revised pages that address NJDEP's comments.

If you have any questions regarding this letter, you may contact me at (609) 633-1494.

Sincerely,



Donna L. Gaffigan, Case Manager
Bureau of Case Management

C: Patricia Gardner, NJDEP/BER
Angela Carpenter, USEPA