

Jim Brown
12/29/97



OFFICE OF WASTE MANAGEMENT

Sections of Site Remediation, Superfund, Underground Storage Tank Mgmt., & Waste Facility Landfill Mgmt.

FAX COVER SHEET

DATE: 12/24/97

TO: Jim Brown

FROM: Laurie Selama

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COMMENTS: _____



**RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

235 Promenade Street, Providence, RI 02908-5767

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24 December 1997

Mr. James Brown, Remedial Project Manager
RI Superfund Section
U.S. Environmental Protection Agency - Region 1
John F. Kennedy Federal Building
Boston, MA 02203-2211

RE: Central Landfill Superfund Site, Johnston, Rhode Island
Draft Remedial Investigation Report - Operable Unit 1

Dear Mr. Brown:

The Office of Waste Management conducted a review of the *Draft Remedial Investigation Report - Operable Unit 1*, dated September 1997 for the Central Landfill Superfund Site located in Johnston, Rhode Island. As a result of this review, this Office has generated the attached comments. Included are comments on the Human Health Risk Assessment (HHRA) and Ecological Risk Assessment (ERA).

At the 24 November 1997 meeting, several issues were discussed which required the Office of Waste Management to pursue answers from different sections within RIDEM. The frequency at which the sedimentation ponds would be dredged as stated in the Erosion and Sedimentation Control Plan (ESCP) was one of the issues discussed. According to the ESCP the sediment will be removed from the sedimentation ponds when the total accumulation in the basin exceeds two-thirds (2/3) of the available storage area.

Another issue that was discussed was whether or not there is a RIDEM regulation that states that a private residential well has to be a certain distance away from a surface water body. I contacted the Freshwater Wetlands Section and according to their regulations, if a well is placed within the fifty foot buffer zone then the owner must apply for a permit to work within the buffer zone, however, a minimum distance does not exist.

The final issue in which the Office of Waste Management had to determine was whether or not the Rhode Island Ambient Water Quality Criteria and Guidelines should to be used in the ERA. After speaking with several individuals, the Office believes that the RI AWQCG are an ARAR to the site and should be used in the evaluation.

If you have any questions please feel free to contact myself or Matt DeStefano at (401) 277-3872.

Sincerely,



Laurie A. Sclama, Engineer
Office of Waste Management

cc: W. Angell, RIDEM OWM
M. DeStefano, RIDEM OWM
B. Richardson, RIDEM OWR

**Central Landfill Superfund Site - Operable Unit 2
Draft Remedial Investigation Report
September 1997**

1. General Comment.

An issue that should be discussed in this report is the potential upwelling of groundwater that could occur as a result of the landfill operations. The potential hydraulic effects from any remedial action should be evaluated, such as the potential for changing the hydraulics so that contaminants could migrate toward the Almy or Upper Simmons Reservoirs.

**2. Page 3-2, Section 3.11 Residential Well Identification Survey:
Bullet Number 2.**

"Thirty-one former water supply wells have been demolished by agents of RIRRC while creating the state-mandated Eminent Domain Buffer Zone."

Please state in this document how the thirty-one former water supply wells were "demolished." The RIDEM Groundwater Quality Regulations include guidelines that must be followed to insure proper well closure. If the wells were not properly closed, please provide an explanation as to the method in which they were and assurance that they are not useable.

**3. Page 3-3, Section 3.11 Residential Well Identification Survey:
Last Paragraph in Section.**

Please explain the methods that will be utilized in the future to estimate the extent of groundwater contamination emanating from the OU1 landfill based on using piezometric data alone.

**4. Page 3-12, Section 3.27 Preliminary Risk Evaluation:
Third Bullet, Surface Water.**

Please be advised that the period chosen for surface water sampling, late-August through early-October may not provide the worst case conditions. That Office of Water Resources has determined that the worst case for continuous point source pollution is indeed between Late-August and early-October, however, May through early-June is the worst case for groundwater and stormwater non-point pollution sources. Please discuss any data that may have been collected during the May through early-June time period.

5. **Page 6-11, Section 6.25 Total Metal Analyses in Groundwater:
Last Paragraph in Section.**

Based on this paragraph it appears that several equipment blanks were contaminated with metals. Please discuss what may have caused the contamination of the equipment blanks and also how procedures can be changed in order to prevent contamination from occurring in future sampling rounds.

6. **Page 6-12, Section 6.26 Water Quality Parameters in Groundwater:
Forth Paragraph.**

This paragraph discusses water quality parameters that were detected in the equipment blanks. Please discuss what may have caused the contamination of the equipment blanks and also how procedures can be changed in order to prevent contamination from occurring in future sampling rounds.

7. **Page 6-13, Section 6.27 Field Screening Results in Groundwater:
Second Paragraph.**

"The four locations (MW-J, MW95-ML9B, MW95-50, MW97-ML10A and RW31002) with high turbidity results also correlate well with high metal results."

Please clarify if turbidity readings greater than 1000 NTU occurred in four or five locations. Although the text states four locations, five wells are actually specified.

8. **Page 6-16, Section 6.33.1 Areas to the North of OU1:
First Paragraph, First Sentence.**

Please specify the appendix that contains the RIDOH and EPA historical sampling data in the revised document.

9. **Page 6-27, Section 6.45 Wet Chemistry and AVS/SEM Analyses in Sediments:
General Comment.**

The AVS and metals availability in sediments should be evaluated using the coldest season of sampling when it is believed the AVS is at its lowest binding capability and metals values in sediments are most stable. As a result, please take this into account and evaluate any data that may have been collected during the winter season.

Human Health Risk Assessment

10. **Page 8-9, Section 8.12.8 Background Surface Water:
General Comment.**

Please provide a brief discussion on how the background locations for surface water were chosen.

11. **Page 8-12, Section 8-14 Identification of Site Related Contaminants of Related Contaminants of Concern:
Paragraph Continued on the Page, Last Two Sentences.**

"The location of the background samples for each media is described in Section 6.00. These locations are shown on Figure 3-1."

Of the eight background surface water locations, there appears to only be five locations on Figure 3-1. Please revise the figure to show all of the background surface water locations.

12. **Page 8-13, Section 8.15 Applicable or Relevant and Appropriate Requirements and Standards:
First Paragraph.**

The Office of Waste Management's Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations) should be included in the ARAR section.

Ecological Risk Assessment**13. General Comment.**

Please be advised that the 6 August 1997 RIDEM Ambient Water Quality Criteria and Guidelines are an ARAR for the site and should be utilized for the ERA.

**14. Page 9-17, Section 9.32 Background Concentrations:
Entire Section.**

This paragraph states that the maximum concentrations detected in the background locations were used in the evaluation for the ERA. By choosing the highest concentration, this could result in excluding sampling stations or contaminants of concern from review using the toxicity quotient method. Instead of using the highest concentration, the lowest detected concentration should be used for comparison purposes.

The practice utilized at other Superfund sites consists of reviewing a series of benchmarks and choosing the lowest criteria. The chosen criteria is then compared to site concentrations. If the site concentration is below the corresponding benchmark then the contaminant is eliminated.

**15. Page 9-39, Section 9.70 Ecological Risk Assessment Conclusions:
Forth Paragraph.**

"Additional Evaluation is required to better evaluate the potential for risks to the environment due to migration of manganese and nutrients from the landfill. However, there is evidence to suggest that the use of composted sludge for topsoil at the landfill any contribute to the concentrations of these constituents detected in surface water."

Since evidence exists indicating that the landfill is contributing to nutrient contamination in the surface water, has the RIRRC considered limiting its use of "Billy Mix" to specific areas in order to reduce the nutrient contamination.