



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

October 5, 1995

Mr. Dennis aRusso
Rhode Island Solid Waste Management Corporation
Central Landfill
65 Shun Pike
Johnston, RI 02919

Subject: EPA review of the Draft Sampling and Analysis Plan, Volumes I and II, Prepared by GZA GeoEnvironmental, Inc., Operable Unit 2 RI, Central Landfill, Johnston, Rhode Island, September 1995.

Dear Mr. aRusso:

EPA has completed its review of the subject Sampling and Analysis Plan (SAP). The RIDEM has also completed its review and their comments are provided as Attachment 1. EPA's page specific comments to the SAP are provided as Attachment 2. General comments to the SAP are provided below.

General Comments

1. GZA does not propose to include "low-flow" sampling of groundwater (particularly appropriate for metals analyses from overburden wells). "Low-flow" sampling is the preferred method in Region I, however it is not currently mandatory. Consideration should be given to implementing low-flow sampling methods at the site. If low-flow sampling was considered but ruled out, please provide the rationale for ruling it out.
2. The minimum detection limits that Mitkem Corporation will be required to achieve are not well defined in the SAP. Does GZA intend to use the standards identified in Tables 2 and 3 with the lowest value for a analyte as the minimum detection limit? A detection limit should not be the same as an action limit (e.g., an MCL), it should be lower. GZA has the risk assessment lead. Their risk people should be providing input to the DQOs. The detection limits should not be an unknown at this point in time. We need to know if the lab can achieve our required detection limits. Statements in the SAP like "the laboratory will attempt to meet the most stringent DQO detection limits..." are not acceptable.



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For ground water analysis, the RAS CRQLs will not be adequate for the following:

VOCs

Vinyl chloride
Methylene chloride
1,1 Dichloroethylene
1,2 Dichloroethane
Carbon Tetrachloride
1,2, Dichloropropane
Trichloroethylene
1,1,2, Trichloroethane
Benzene
Tetrachloroethylene

SVOCs

pentachlorophenol
Bis(2ethylhexyl)phthalate
benzo(a)pyrene)

Metals

antimony
thallium

Also, there are a dozen or so additional compounds for which the risk-based cleanup level is lower than the CRQL.

For cost savings purposes, the lower detection limits for ground water could be substituted with the RAS CRQLs in areas of the plume where historical information shows that the RAS CRQLs will be adequate.

3. Dioxin sampling and analysis has been included in the SAP. GZA's inclusion of dioxin sampling and analysis was in response to an EPA comment to the OU2 Work Plan (August 25, 1994 EPA letter to Dennis aRusso). We have re-evaluated our position. At this point in time there is no reason to believe that the Central Landfill Site is a significant source of dioxin, therefore, dioxin sampling and analysis is not appropriate for the Central Landfill Site.
4. GZA proposes 0 to 12 inches composite soil samples to assess potential historical airborne contaminant migration. This is adequate in areas where the soil has been tilled. However, the 0 to 12 inches composite is not adequate for evaluating exposures for human health purposes if the soils have not been tilled. If soils from a one-foot interval are

homogenized and sampled, this could result in dilution of contaminants that are most likely present in the upper few inches of the soil.

In EPA's Methodology for Assessing Health Risk Associated with Indirect Exposure to Combustor Emissions, a value of 20 cm is used for tilled soil and 1 cm for untilled.

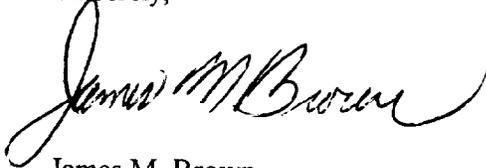
However, the latter number was just a default since there was no supporting data. Based on the above reference, we believe a 0 to 3 inches composite will be adequate for evaluating human health risks if the soil is untilled and a 0 to 12 inches composite will be adequate if the soil has been tilled.

To evaluate the exposures to ecological receptors we usually require a 0 to 2 feet composite. Therefore, to accommodate the objectives for both the human health and ecological risk assessments, it may be necessary to double the amount of soil sampling. EPA is willing to discuss this further with GZA.

5. At the appropriate place(s) in the document, it should be stated that during surface water/sediment sampling, efforts will be made to begin sampling from the most downstream location first, finishing with the most upstream location, to avoid potential upstream disturbances which could affect downstream sample locations. Also, when both surface water and sediment are to be collected from a given location, surface water should be collected first, followed by sediment sample collection, to avoid entrainment of disturbed sediments in surface water samples.
6. At the appropriate place(s) in the document, it should be stated that sample preservation shall be conducted *as soon as possible* following sample collection, when sample containers are not pre-preserved (for example, dissolved metals samples must be field-filtered prior to preservation and cannot be pre-preserved.)
7. Sections 4.91, 4.92 and 4.93: Text should be included in each of these sections to describe, as appropriate, the proposed areas for collection of background samples and the rationale for their selection.

In addition to the attached comments to the SAP, EPA and RIDEM would like to meet with RISWMC and GZA as soon as possible to further discuss the institutional controls issue I briefly discussed with you about two weeks ago during one of our telephone conversations. Also, we would like to discuss in some detail how EPA and RIDEM can assist GZA in completing the residential survey. I suggest October 11, 1995 at 2:00 pm at the Central Landfill. Please call me if you have any questions about the attached comments and to set up a day and time for the meeting.

Sincerely,

A handwritten signature in cursive script that reads "James M. Brown". The signature is written in black ink and is positioned above the printed name and title.

James M. Brown
Remedial Project Manager

cc: Dick Boynton
Margaret McDonough
Al Klinger
Becky Cleaver
Greg Fine
Tim Prior
Ed Summerly

Attachments