



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

April 14, 1995

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

RE: EPA's comments to the Draft Work Plan Response Summary, Operable Unit 2, Remedial Investigation, Prepared by GZA GeoEnvironmental, Inc., February 17, 1995.

Dear Mr. aRusso:

EPA has completed its review of the subject Response Summary. Many issues still remain unresolved our only partially resolved. A discussion of these remaining issues will be the first item on our April 25th meeting Agenda. If you wish to discuss these issues with me before the April 25th meeting, please call me any time.

Sincerely,

A handwritten signature in cursive script that reads "James M. Brown".

James M. Brown
Remedial Project Manager

cc: Dick Boynton, EPA
Warren Angell, RIDEM
Tim Prior, USFW
Ed Summerly, GZA GeoEnvironmental, Inc.
Becky Cleaver, HNUS



**REVIEW OF THE DRAFT WORK PLAN RESPONSE SUMMARY
PREPARED BY GZA GEOENVIRONMENTAL, INC., FEBRUARY 17, 1995
CENTRAL LANDFILL, OPERABLE UNIT 2, JOHNSTON, RHODE ISLAND**

Presented below are EPA's comments for those responses which EPA considers to be unresolved or only partially resolved:

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Review of Response to Comment

2. EPA agrees that a compilation of data be conducted of any available monitoring data from other known or potential waste sites which may be contributing to environmental contamination in the area of the RISWMC property. In order to properly evaluate groundwater exposures to human receptors at appropriate locations downgradient of the Central Landfill, information is necessary that will allow for the distinction of those monitoring and domestic wells in OU2 that have been impacted by site-related contaminants, from those that have been impacted by other off-site sources.

3. EPA comment is partially addressed:
 - "Sediment samples will be collected at the time of and in locations similar [to] the first round of surface water samples..." It is recommended that two rounds of sediment samples be collected (in conjunction with the two surface water sampling events), to produce a reliable analytical database and to increase the confidence level of the data, in support of the risk assessment.

 - The number of samples (surface water and sediment) proposed for collection at each of the sedimentation/retention ponds seems extremely limited for the purpose of producing a reliable database for risk assessment purposes. At a minimum, the number of samples should be increased to two per sampling round, for a total of 4 surface water samples and 4 sediment samples from each pond. During each sampling round at each sedimentation pond, one sample location should be near the inlet (point of discharge of surface water runoff into the pond); the other sample location should be located in the central area of the pond. Based on the size, shape and other relevant characteristics of each pond, additional sample locations may be necessary to achieve representativeness of the conditions in the ponds. Because many

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3. of the contaminants which may be detected in the ponds are likely to adsorb to sediments, the analytical database for the sediments within each of the ponds should be supported, at a minimum, by the same number of samples as the database for surface water.
- In addition, special considerations for additional sediment sampling should be taken into account for Sedimentation Pond No. 2 and for the Upper Simmons Reservoir, as explained in the original Comment No. 10 and its corresponding response.
- Further review of specific numbers and locations of samples will be conducted during the review of the referenced Field Sampling Plans to be generated. Based on EPA's review of the Phase II Upper Simmons Sediment Sampling Results, sampling of Lower Simmons Reservoir is warranted and should be added to the OU2 Work Plan.
 - It should be noted that updated information is necessary for performance of the baseline human health risk assessment, including the current and expected uses (swimming, wading, fishing, etc.) of the water bodies to be sampled (Upper Simmons Reservoir, Almy Reservoir, Cedar Swamp Brook, Quarry Stream, wetlands, etc.)
4. Groundwater must be evaluated as a drinking water source under a "future use scenario", at a minimum. The results of the proposed "Residential Well Survey" may provide additional information to evaluate whether groundwater should be evaluated as a drinking water source under the "current use scenario", in conjunction with EPA. It is noted that the OUI RI indicated that two residences, located south and southeast of the site, chose not to be connected to the municipal water supply system; therefore, it is anticipated that they are receptors of groundwater which may be impacted by the Central Landfill.

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5. EPA comment is partially addressed:
- The response to this comment should be modified to be in agreement with the review of the response to Comment 3 (see above), regarding the number of surface water and sediment samples to be collected at each sedimentation pond.
 - In addition, the following GZA response is confusing and needs clarification: "The contaminant data will also be evaluated with respect to bioaccumulation based on the basins use as a feeding ground. Direct exposure to contaminants by organisms living within the basins will not be evaluated because effects due to chronic exposure to the basins sediment load is likely to outweigh potential chemical effects." Ecological risk associated with chronic exposure may not necessarily outweigh the concerns related to acute exposure, since some contaminants within the ponds *may* be present at concentrations that pose immediate (acute) direct risk to wildlife. This determination shall be made following review and evaluation of OU2 data.
 - It is agreed that exposures to site workers involved in the maintenance of the sedimentation ponds are to be evaluated. In addition, exposure to surface soils via dermal contact and ingestion routes will be examined for current and future scenarios. Surface soil analyses for OU2 areas are necessary to evaluate deposition of contaminants downwind of the site, and inhalation of fugitive dusts. Also, information on vegetative cover is necessary to evaluate the inhalation of fugitive dusts.
6. With respect to the number of additional surface water and sediment samples to be collected, refer to the discussion of GZA's response to comment number 3 above.
8. With respect to GZA's response which states "...RISWMC does not intend to evaluate groundwater as a potable water source unless the Residential Well Survey identifies downgradient groundwater users," refer to the discussion of GZA's response to comment number 4 above. (Groundwater as a potable water source should at least be evaluated under a future use scenario). Also, GZA's response regarding potential remedial alternatives does not address the CERCLA preference for the reduction of contaminants.

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9. EPA comment is partially addressed: refer to the discussion of GZA responses to Comments 3 and 5 above. In addition, appropriate descriptions of the sedimentation ponds (including size, physical setting, surrounding habitats, currently or potentially present wildlife, etc.) will be required for the risk assessments. Such descriptions have not been provided in the reports that are currently available.
13. EPA comment is partially addressed. The last two lines of the first response to the comment are incomplete and, therefore, confusing. In addition, since the response to Comment 13 indicates that "The text has not been revised", the resolution of the issues regarding the text related to the Work Plan's Table 1, (attached to the "Draft Work Plan Response Summary"), will be reviewed when the Draft Final or Final version of the document is issued.
16. EPA comment is partially addressed. The response assumes that dioxins, if present, would have migrated from the landfilled areas mainly via groundwater, and proposes a two-phased approach to address potential dioxin contamination in groundwater only. However, migration of dioxins at the Landfill could have also occurred through other pathways, mainly via air or surface water runoff, as soil-borne contamination.
17. EPA comment is addressed. Note that for ecological risk assessment purposes, soil sampling should include the 0 to 2 feet depth range.