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September 28, 2005

U.S. Environmental Protection Agency
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Submitted to: National Research Council
Project: Centredale Manor
Reference: 100-100000-1000
Document: 100000-1000-1000



SDMS DocID 273413

Attn: Anna Krasko, On-Scene Coordinator

**Subject: Centredale Manor Restoration Project
PRG Development Process**

Dear Anna:

Thank you for providing the opportunity to meet with you and the rest of the Centredale Manor technical team on September 22. We are encouraged about the opportunity to work with you, the technical team, and the other stakeholders in a more collaborative manner throughout the feasibility study (FS) process. Our initial conversations with our clients following the meeting on September 22 confirmed their desire to actively participate and to provide meaningful input during this process. Toward that end, we are working to identify and develop a process for all stakeholder input.

Although hopeful of engaging in mutual endeavors during the FS, upon reflection, we are not without reservations concerning the development of the preliminary remediation goals (PRGs). Like the FS, the development of PRGs is best accomplished with the input of all stakeholders. We believe that PRG development, for certain media/exposure pathways, is not simply a back-calculation of an exposure equation to compute a media concentration at a defined level of risk. Such is the case for media/exposure pathways at the Centredale Manor site. Thus, we respectfully request that the release of the Interim Final PRG Report be made only after all stakeholders have the opportunity to provide meaningful input. Allowing the stakeholders the opportunity to review the *same information that is to be used by the decision-makers and to include, to the extent possible, all affected parties in the entire decision-making process* is consistent with the National Research Council (NRC) report entitled *A Risk Management Strategy for PCB-Contaminated Sediments* and the Office of Solid Waste and Emergency Response (OSWER) Directive 9285.6-08: *Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites*. In accordance with the NRC report and the OSWER directive, such information should be made available in such a manner that allows adequate time for evaluation and comment on the information by all parties.

We believe that the development of sediment PRGs, based on the fish ingestion exposure pathway, requires a much more complex analysis in which professional judgment can be more important than any prescribed, standard format. The lack of data or an inaccurate

understanding of potential exposure can introduce undue uncertainty into the analysis. This complexity is further enhanced by the multiple-reach nature of the Centredale Manor site. For that reason, we believe it important that the stakeholders have input into developing the PRGs, before the issuance of the Interim Final PRG Report.

As a constructive first step, we believe that the use of the present fish tissue data adds uncertainty to the draft baseline human health risk assessment. This issue will be problematic for PRG development unless addressed in one way or another. First, there is a paucity of fish tissue data for Dyerville and Manton Ponds. Second, there is an inconsistency and lack of comparability in fish species for all of the Ponds. At present, the risk assessment and PRG development for Dyerville Pond would be based on data for only 3 American Eels. For Manton Pond, the risk assessment and PRGs would be based on only 3 Large Mouth Bass specimens. A sample of three individual fish from these ponds is inadequate for accurately assessing uptake and risk from ingestion of fish from these areas. In addition, the species that are used for the risk assessment and PRG development will have a significant impact on the results. If eels are the only source of data from a particular reach (e.g., Dyerville Pond), then the computed risks will be significantly higher and the PRG significantly lower (more stringent) than if Large Mouth Bass data were used. All sorts of assumptions can be made in developing the PRGs, including the following:

- Which species are desirable to eat and in what proportions relative to each other;
- What constitutes a realistic and reasonable rate of fish ingestion from a non-destination fishery with limited potential to support an avid angling population;
- What is assumed concerning preparation, trimming and cooking methods concerning their effects on reducing the quantity of dioxin in fish; and
- Which fish data will be used to measure body burden (whole body vs. fillet only).

Because the composition of the fish species caught from each pond is different, the result of the risk assessment and PRG development will also be different. This is just one issue that requires significant thought and discussion and perhaps additional data collection to rectify.

Another observation is that the fish tissue samples used in the risk assessment were all collected in the summer of 2001. Fish caught from each pond were used to assess the hypothetical risks for each pond. However, it is unclear whether the fish caught in a specific pond (e.g., Lyman Mill Pond) had always resided in that pond. Hence, are the body burdens of those fish due solely to the dioxin in sediment from that pond, or did they come from an upstream reach? With respect to the Allendale and Lyman Mill Pond systems, the dam separating these two ponds may have acted as a barrier to fish migration between the ponds. However, repair and reconstruction of the dam did not begin until the summer of 2001 and was not completed until February 2002. Therefore, there is no guarantee that the fish caught in Lyman Mill Pond had not accumulated dioxin from Allendale Pond sediments, where the sediment dioxin concentrations appear to be substantially greater than those in Lyman Mill Pond. The Contaminated Sediments Technical Advisory Group (CSTAG) also raised this concern and strongly recommended that new, co-located sediment and fish tissue samples be collected. Furthermore, this issue may not be unique to the upper ponds because eel may be able to pass the dams freely, so their body burdens may originate from any of the ponds.



In addition to the above issues, we have additional concerns with some of the assumptions used in the baseline HHRA for the fish ingestion exposure pathway. Because the assumptions used in the baseline HHRA become inherent parts of the PRG development process, it is important that these issues be discussed with the Agency and other parties.

In closing, I would like to reiterate our desire to work in a collaborative effort with EPA and the technical team as envisioned by the OSWER directive so that the FS process can move forward in a manner that all stakeholders can embrace. This is particularly true for those elements of the process that will contribute significantly toward building the framework of the final remedy for the site. As outlined above, we feel that the PRG development process is a key piece to that framework, and as such, the stakeholders should be allowed the opportunity to participate before the release of the Interim Final PRG Report. Again, we respectfully request that you open the PRG development process to all stakeholders.

We will contact you within the next few days to discuss your thoughts on this matter and ways in which it may be implemented.

Sincerely,

A handwritten signature in black ink that reads "Russ Keenan". The signature is fluid and cursive, with the first name "Russ" and last name "Keenan" clearly distinguishable.

Russell E. Keenan, Ph.D.
Vice President
Technical Director, Risk Assessment

cc: Jeff Loureiro
David Scotti
Patrick Gwinn