CORRESPONDENCE/MEMORANDUM

Date:

September 9, 1993

To:

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Tom Sheffy, WR/2 Mark Giesfeldt, SW/3

Larry Maltbey, Rhinelander

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From:

Jim Kreitlow, NCD

Subject:

Stream Sediment Sampling at Hazardous Waste Sites

Recently I was asked by the District Solid Waste staff (Connie Antonuk) to write a sediment sampling plan for Military Creek in Phelps, Wisconsin. The purpose of the sampling plan is to assist the Bureau of Solid Waste personnel who are conducting an overall site assessment at the old C.M. Christensen Wood Treating Facility for ERF or Superfund scoring. It would also assure that proper sampling techniques are used and that the resulting data is useful to both programs.

This would seem like a marriage made in heaven. Two programs working together to obtain information, benefiting both. Water Resources would obtain information on the contaminant levels and their potential threat to the aquatic environment. Solid Waste would gain information on the relative extent of contaminant migration off-site. In either case, both would be useful in assessing the site.

Here is the problem: The contract lab chosen by EPA to analyze the sediment samples has quantification levels for many environmental variables that are much too high to provide meaningful information. For example, the quantification level for pentachlorophenol (PCP) stated by the contract lab is 1700 parts per billion (based on soil). They do not even list their detection levels. As it has been explained to me, it is possible the lab could provide a value below 1700 parts per billion but this would be a ballpark figure and not guaranteed. The State Lab of Hygiene has a detection level for PCP of 20 parts per billion. Background PCP concentrations range from 1 to 5 part per billion (Tom Janisch, personal communication). Earlier sampling conducted on Military Creek showed PCP concentrations ranging from 30 to 640 parts per billion in stream sediments. Therefore, EPA's quantification limit is three times higher than values found in Military Creek.

Also, the EPA contract lab does not routinely run particle size analysis or total organic carbon. This is essential. Total organic carbon and particle size analysis provide a good common denominator for on-site sample comparisons as well as comparing these values to other locations in the state.

I am sure this problem is not unique to this site, but is a statewide problem. I feel someone needs to talk to EPA Region 5 and explain the problem (may be this has been done). If this is something we have no control over, perhaps we should use the State Lab of Hygiene and follow proper QA/QC and chain of custody procedures. Will EPA accept our State Lab of Hygiene data as long as correct procedures are followed?

North Central District Solid Waste and Water Resources Management staff have put in considerable amount of time planning for this venture. As it stands now, we both recommend not collecting sediment samples out of Military Creek unless the proper detection limits are assured.

If you have any questions, please give me a call at (715)369-8947.

JK:da

cc;

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