

**From:** Edward Kulzer  
**To:** Sherry Lewis  
**Date:** Tue, Aug 31, 1999 2:13 PM  
**Subject:** Re: Concurrence for MDNR Mtg Summary

Sherry,  
This looks good to me. I concur.

>>> Sherry Lewis 08/30 3:29 PM >>>  
Ed,

I've talked to Tim Johnson regarding your comments. MDNR does not need NRC approve for its site characterization plan. We believe that MDNR will be coordinating closely with agencies responsible for hazardous chemicals. As you have mentioned, the EPA and the State are involved.

You mentioned that some of the reasons that NRC may be concerned with drilling are that solvents released can leak out through the clay bottom and also that thorium may be soluble in some of the solvents. We don't believe any solvents will leak out through the clay bottom based on the description from MDNR's Scoping Report and MDNR's slides from the 8/24/99 meeting. In Chapter 2 of the Scoping Report, it says that there is a glacial till consisting primarily of clay directly below the sandy deposit at the MDNR Tobico Marsh site. The thickness of this underlying clay unit is reported to be between 50 and 100 feet, and this glacial clay underlying the sand acts as a lower confining unit for the water table. In the slides from the 8/24/99 meeting with MDNR, the site description says that "with the exception of the overlying sands, the geologic conditions are not conducive of vertical mobility of water between aquifers."

I've attached a revised summary of our 8/24/99 meeting with Michigan Department of Natural Resources on site characterization plan. Please let me know if you have additional comments or questions. May you respond by 9/2/99?

Thanks,  
Sherry

>>> Edward Kulzer 8/27/1999 9:29:27 AM >>>  
Thanks Sherry .

I can't speak for NRC in approving or disproving the plan that was submitted, but I have talked to USEPA (both health physicists and geologists) who agree with me that they would not allow drilling into this cap. Some of the reasons are that solvents released can leak out through the clay bottom and also that thorium may be soluble in some of the solvents. (As a side note to you, I think the workers would be protected by the equipment they would be wearing, but that isn't my concern.)

>>> Sherry Lewis 08/26 2:06 PM >>>  
Ed,

Thanks for clarifying your points and reminding me of other points, especially since my notes were NOT very detailed. I do recall you commenting on these issues during the Tuesday meeting.

It's my understanding that your concern is that if MDNR drills a large number of holes in the contaminated portion of the site that contains over 18,000 barrels of liquids, many of the drums underneath the clay cap could be punctured. If this happens, the liquids solvent would be released and the potential for environmental problems increase.

You said that MDNR may have received MDEQ approval of this plan and that we need to be furnished with a written copy of this approval. You also said that you don't think NRC should approve this method. Like you, I would like to see a copy of the approval if it exists. However, I'll have to ask Tim Johnson

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(he'll be back from travel early next week) about our jurisdiction.

I remember that you mentioned at the meeting that there is a pond near the site that neighbors fish. I apologize for not mentioning it in the summary since I must have been listening intensely and not taking notes at the time. I plan to add that we said that we are concerned with the groundwater movement beneath the site and the potential for the nearby pond to become contaminated.

I'll make changes, talk to Tim Johnson, and send you a revised copy of the summary of the 8/24/99 meeting early next week for your comments/concurrence. Please let me know if you have additional comments or questions.

Thanks for the feedback,  
Sherry

>>> Edward Kulzer 8/26/1999 2:36:00 PM >>>

Sherry,

I must not have been very clear on my point that I tried to make in number 3 of your summary. My concern is that by drilling more than 200 holes in the contaminated portion of the site containing over 18,000 barrels of liquids, many of these drums would be punctured releasing the solvent (liquids). This would, therefore, increase the potential for environmental problems. If they have received Michigan Department of Quality approval of this plan we need to be furnished with a written copy of this approval. In any event, I don't think NRC should approve this method.

I should also point out that as stated in your summary the MARSSIM method is based on two dimensions, any effort to extend this to three dimensions would not be multi agency approved and no longer be MARSSIM.

Lastly, I pointed out during the meeting that there is a pond near the site that neighbors fish. Which way does the ground water move? Is there a potential for this pond would become contaminated?

>>> Sherry Lewis 08/26 6:42 AM >>>

Ed,

I've attached the summary of our 8/24/99 meeting with Michigan Department of Natural Resources on site characterization plan of the Tobico Marsh site. Please provide me your comments and/or concur on the summary. May you respond by 9/1/99? If you can't, please let me know.

Thanks,  
Sherry