

**New York State Department of Environmental Conservation**  
**Division of Environmental Remediation**  
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July 2, 2013

[REDACTED]  
Department of the Army  
Buffalo District, Corps of Engineers  
1776 Niagara Street  
Buffalo, New York 14207-3199

Re: Comments on the Interim Waste Containment Structure Remedial  
Alternatives Technologies Development and Screening Technical Memorandum

Dear [REDACTED]

The New York State Department of Environmental Conservation (DEC) and the New York State Department of Health (DOH) received notification of the availability of the above listed plans on April 11, 2013 by way of your "Niagara Falls Site News from the Corp" email. While do have some technical comments attached, the document does a good job of discussing the three sub-units and the effect of implementing each of the three potential remedial actions within each sub-unit.

If you have any questions or need further information on DEC's comments, please contact [REDACTED] on geotechnical issues at [REDACTED] on radiological issues at [REDACTED]

Sincerely,

[REDACTED]  
Director  
Remedial Bureau A

ecc :

[REDACTED] USACE

[REDACTED] USEPA

[REDACTED] YSDOH

[REDACTED] d, DEC Region 9

[REDACTED] ection 9

Figure 3-1 and as discussed in section 3.4.1.1.1 *Proprietary Controls*: It is stated that “Proprietary controls would typically only be used for remedial alternatives for the IWCS if the IWCS is transferred to a non-Federal entity and contamination remains above levels that allow for unlimited use and unrestricted exposure.” This may be true; however, New York State would take exception to having this property transferred to any non-Federal owner without a significant amount of remediation to reduce the source term. Therefore it is suggested that some qualifiers be added to the screening comments section of the table.

Figure 3-1 and as discussed in section 3.4.1.1 *Institutional Controls*: “Enforcement and permit tools with LUC components” is listed as the third bullet in this section and is also listed in figure 3-1, yet there is no textual discussion within the remaining portion of the section as to why it is not applicable as described in Figure 3-1. Someone is going to have to be responsible for enforcing land use controls if material is left on-site. While New York State has not seen the LUC plan for the Seaway landfill it seems that the Corp, as spokesperson for the Federal Government, abstains from any responsibility and places the State or local parties responsible for the application and enforcement of LUC’s. This topic needs to be addressed as long term responsibility and management is needed and we do feel it is applicable.

In section 3.4.1.5 *Summary of Potential LUCs for the IWCS* it states, “If a final remedy is selected that includes institutional controls as one of its components, an Institutional Controls Plan would be prepared after the final remedy for the IWCS OU is approved in the ROD. The plan would document the approach for implementing and maintaining the institutional controls.” As the State stated during the Seaway ROD process, these Institutional Control Plans (or Land Use Control Plans) need to be developed prior to any agreement by the State on any ROD relying on institutional controls. The State wants to see how this material will be protected. In the Seaway case, the ROD was finalized in October 2009 and the Land Use Control Plan has not yet been completed. New York State does not expect that this will be the case for this facility. If the Corps plans to again proceed with a ROD without having reached agreement on land use controls, we respectfully request a meeting to discuss this topic.

Depending on the results of the investigative work performed by the Corp in the fall of 2012, this comment may change. However, since there has been much discussion as to whether many underground utilities were terminated with the installation of the current vertical barrier, the State feels that if any material is left in place\* that there should be additional vertical barriers installed.

\*Please note that it is the State’s stated position and the position of the National Academy of Science is that the K65 waste should be removed and it is not our intention by including this comment for the Corp to infer that we are in favor of leaving material on-site!

In section 4.6.2 *Physical Processes – Ex-Situ Vitrification* the last bullet states, “Evaluation Summary. Based on past experience, vitrification appears to be a cost-effective technology in cases only where there are large high-level waste streams. For this analysis, it is rated moderate for effectiveness on a waste stream like the K-65 residues, low for implementability, and high for cost. Ex-situ vitrification is not retained for further consideration.” Since remediation, if any, is not likely to begin for another decade this Department believes it is premature to rule out this technology as this technology may improve in the interim, thereby lowering costs. In fact, in the document *WASTE DISPOSAL OPTIONS AND FERNALD LESSONS LEARNED TECHNICAL MEMORANDUM* in section 2.1.5.4 Operable Unit 4 Post-ROD Decision, Changes it states in the last sentence of the second paragraph on page 2-11 that: “While vitrification was ultimately

deemed to be not applicable at Fernald due to technical issues identified in the test program, advances in the technology have addressed those issues and vitrification may be appropriate for consideration at NFSS. Therefore based on this conclusion, we are not sure if the current evaluation within this document is thorough enough to warrant its elimination yet.

In the last paragraph of section 5.2.2.3 Containment Enhancements, there should be some discussion/consideration of making the IWCS smaller on the same footprint if Action A3 is implemented. This would reduce the amount of additional fill materials which would be brought in from on-site locations and/or from off-site sources.

The above comment is also true for the last paragraph of section 5.3.2.3.

In Section 5 there is no discussion of Alternative 4. For completeness, the removal of radioactive material from all three subunits needs to be discussed. This discussion will be important during the feasibility study when considerations of cost are factored into the decision and the cost benefit realized from the lack of LUCs and five year reviews.

In section 6.2 *Treatability Studies*, as stated in our comment on section 4.6.2, since remediation, if any, is not likely to begin for another decade this Department believes it is premature to rule out ex-situ vitrification as a technology since the implementability may improve within that time frame and thus result in lower costs.