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Department of Energy

Field Office, Oak Ridge

P.O. Box 2001

Oak Ridge, Tennessee 37831- 8723

May 10, 1993

Ms. Kathleen C. Callahan
Acting Deputy Regional Administrator
U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10276

Dear Ms. Callahan:

NIAGARA FALLS STORAGE SITE - INSTALLATION OF FINAL CAP

The purpose of this letter is to discuss the installation of the final cap on the Waste Containment Structure (WCS) at the Department of Energy's (DOE) Niagara Falls Storage Site (NFSS). The site is currently being managed by DOE's Formerly Utilized Sites Remedial Action Program (FUSRAP). The on-site containment structure currently holds approximately 4,000 cubic yards of K-65 residues beneath a far larger volume (approximately 250,000 cubic yards) of rubble and soil generated by past cleanup activities at NFSS.

Over the past several years, both EPA and DOE have researched alternative approaches for final management of the K-65 residues present at this site. In particular, discussions have been focused on identifying appropriate regulatory compliance requirements for management of these residues. Both the high level waste standards developed under 40CFR191 and the uranium mill tailings standards presented by 40CFR192 have been reviewed as potential models for permanent residue management. This review has resulted in a few key findings. Specifically: neither of these regulations are strictly applicable (legally) to the residues; implementation of either approach would yield protective remedies; compliance with the 40CFR192 standards can be accomplished on site; and compliance with 40CFR191 standards requiring 10,000 years of containment would be difficult to prove a priori at the NFSS site.

As a practical consideration, there are currently no facilities in existence which meet the standards of 40CFR191. While DOE is attempting to establish such facilities, actual disposal capacity is not anticipated for several years. When opened, these facilities will no doubt be dealing first with a significant backlog of truly high level wastes present at sites other than NFSS.

The costs that would be incurred in removing the K-65 residues from their present location in the waste containment structure, storing and eventual future disposal would be on the order of \$100 million. Additionally, expected worker exposures while exhuming and storing the K-65 residues away from their present embedment would be significant.

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DOE has monitored the NFSS site since the emplacement of the residues six years ago. Data collected indicates that the facility is successfully isolating the residues even with only an interim cap in place. Annual reports compiling the data have been provided to EPA Region II. The interim cap is designed for a limited service life of 25 to 50 years. Installation of a final cap compliant with 40CFR192 standards would upgrade its service life to 200 to 1,000 years and increase its environmental protectiveness by increasing the thickness of the covering material from approximately 4 feet to over 10 feet. After installation of the final cap, the entire facility will be monitored and maintained perpetually by DOE. Installation of a final cap would not preclude access to the residues if deemed necessary or appropriate at a future date.

Funds appear to be available in the near term for installation of the final cap, but delaying implementation until later funding years will result in activities at NFSS competing with funding for implementation of major Records of Decision at other FUSRAP sites in Maywood and Wayne, New Jersey, Tonawanda, New York, and St. Louis, Missouri. This will increase fiscal pressures should anticipated funding levels for FUSRAP become a reality. In addition, local sources for clay material may become available in the near-term that will allow DOE to realize substantial savings for the cost of installing the cap. All of this provides fiscal incentives to install the final cap now instead of waiting.

In summary, DOE believes that installation of the final cap would improve the overall environmental protectiveness of the WCS while not limiting possible future actions regarding the K-65 residues. Considering this and the fiscal incentives identified above, DOE believes it is in the best interest of all concerned parties to proceed with the installation of the final cap.

Please contact us if you have any concerns with the management strategy outlined above for NFSS. Absent any technical basis for concern, DOE intends to implement the Record of Decision with regards to installation of the long-term cap. If you have any questions concerning this decision, please contact me at (615) 576-1830.

Sincerely,



William M. Seay, Acting Director
Former Sites Restoration Division

cc: R. W. Hargrove, EPA II
J. W. Wagoner II, EM-421, TREV II