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**DECONTAMINATION OF URANYL NITRATE HEXAHYDRATE TANKS AND  
NITRIC ACID/RESIDUAL WASTE PROJECT TANKS**

06/27/96

DOE-1048-96  
DOE-FN      EPAS  
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REPORT



## Department of Energy

Ohio Field Office  
Fernald Area Office

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JUN 27 1996

DOE-1048-96

Mr. James A. Saric, Remedial Project Director  
U.S. Environmental Protection Agency  
Region V - SRF-5J  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5th Street  
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

### **DECONTAMINATION OF URANYL NITRATE HEXAHYDRATE TANKS AND NITRIC ACID/RESIDUAL WASTE PROJECT TANKS**

- Reference:**
1. Letter, T. P. Crepeau to J. Craig and D. Ofte, "Director's Final Findings and Orders," dated December 27, 1994.
  2. Letter, T. A. Schneider to J. Craig, "DOE FEMP MSL #531-0297 Hamilton County UNH Orders," dated June 15, 1995.
  3. Nitric/Residual Waste Project, Removal Action Work Plan Amendment to Existing Removal Action, dated July 20, 1995.

This letter provides information and data concerning the decontamination of Uranyl Nitrate Hexahydrate (UNH) Tanks F1-25 and F1-26 and Nitric Acid/Residual Waste Project tanks D1-7, D1-11, F1-23, and F1-24; and, requests concurrence that the information provided for UNH Tanks F1-25 and F1-26 demonstrates compliance with Paragraph V of the referenced Director's Final Findings and Orders as clarified by Reference 2. Additionally, analytical results verifying that the Nitric Acid/Residual Waste Project Tanks D1-7, D1-11, F1-23, and F1-24 having been decontaminated is provided.

After processing was completed for the Nitric Acid/Residual Waste Project, UNH Tanks F1-25 and F1-26 were cleaned and rinsed. Samples were then taken and analytical results verify that Tanks F1-25 and F1-26 have been decontaminated (Table 1). After Tanks

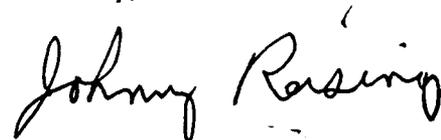
D1-7, D1-11, F1-23, and F1-24 were emptied, they were cleaned and rinsed. Analytical results of samples from each of these tanks verify that Tanks D1-7, D1-11, F1-23, and F1-24 have been decontaminated (Table 2).

On June 6, 1996, the last of the magnesium diurnate slurry and rinsewater, generated by the Nitric Acid/Residual Waste Project was filtered in Plant 8. Tank D1-7 contained both aqueous and organic phase liquids. The organic phase was transferred from Tank D1-7 to 14 drums which will be dispositioned at the Toxic Substance Control Act (TSCA) Incinerator in Oak Ridge, Tennessee. The remaining liquid wastes that were contained in Tank D1-7 were pumped through Tank D1-11, which had contained UNH crystals, and then transferred to Tank F1-26 for processing. After Tanks D1-7 and D1-11 were emptied, they were cleaned and rinsed. Tanks F1-23 and F1-24 contained nitric acid, which was processed in Tanks F1-25 and F1-26. After the acid was removed from Tanks F1-23 and F1-24, the tanks were cleaned and rinsed.

The actions described above were the final actions required to complete the Nitric Acid/Residual Waste Project, which was performed under Removal Action 20.

If you have any questions or require additional information, please contact Chris White at (513) 648-3172.

Sincerely,



**Johnny W. Reising**  
**Fernald Remedial Action**  
**Project Manager**

**FN:White**

**Enclosure: As Stated**

cc w/enc:

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N. Brown, DOE-OH  
D. R. Kozlowski, DOE-FN  
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P. E. Pardi, OEPA-Dayton  
T. Schneider, OEPA-Dayton (3 copies of enc.)  
F. Bell, ATSDR  
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R. Vandegrift, ODOH  
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T. D. Hagen, FERMCO/65-2  
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AR Coordinator/78  
  
C. Little, FERMCO/2

## ENCLOSURE

TABLE 1. URANYL NITRATE HEXAHYDRATE TANK RINSE RESULTS

Tank	pH	lead mg/l	barium mg/l	chromium mg/l	mercury ug/l	total uranium mg/l
F1-25	9.55	0.096	<0.2	0.087	1.86	38.7
F1-26	9.38	0.079	<0.2	0.089	0.44	12.7
Rinseate Standards <sup>1</sup>	> 2.0 < 12.5	0.6	1.0	1.0	30.0	NA

<sup>1</sup> Standards based on Section 3.1 of OEPA Closure Plan Review and Guidance, April 1, 1993.

TABLE 2. NITRIC ACID/RESIDUAL WASTE PROJECT TANK RINSE RESULTS

Tank	pH	lead mg/l	barium mg/l	chromium mg/l	mercury ug/l	total uranium mg/l
D1-7	8.96	<0.024	<0.2	0.012	<2.0	5.5
D1-11	7.68	0.028	<0.2	<0.01	<2.0	1.3
F1-23	9.05	<0.021	<0.2	0.054	<0.2	0.3
F1-24	9.29	<0.021	<0.2	0.025	<0.2	<0.1
Rinseate Standards <sup>1</sup>	> 2.0 < 12.5	0.6	1.0	1.0	30.0	NA

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