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**CONDITIONAL APPROVAL K-65 DECANT SUMP
REMOVAL WORK PLAN**

1-11-91

OEPA/DOE

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LETTER



Environmental Protection Agency

West District Office
14th Main Street
Cincinnati, Ohio 45402-2086
(513) 449-6357
FAX (513) 449-6249

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To	Andrew Avel		
Co.	DOE-FMPC		
Dept.		Phone #	
Fax #		Fax #	

1989

Richard F. Celeste
Governor

January 11, 1991

Re: CONDITIONAL APPROVAL
K-65 DECANT SUMP
REMOVAL WORK PLAN

Mr. Andrew Avel
U.S. DOE-FMPC
P.O. Box 398705
Cincinnati, Ohio 45239

Dear Mr. Avel:

The purpose of the letter is to conditionally approve the Revised Removal Action Work Plan for the K-65 Silos Decant Sump Tank. The conditions for approval are that DOE address, to Ohio EPA's satisfaction, the two issues listed below:

General Comment

1. Future analyses of the K-65 decant sump liquid should include a quantification of the concentrations of Actinium-227 and Protactinium-231 in the liquid. These radio-isotopes are daughter products of Uranium-235, which has been measured at concentrations exceeding its DOE DCG (as defined in the FMPC Annual Environmental Report) in all but one of the monthly decant sump liquid samples. The presence of U-235 in the decant sump liquid makes it likely that these two contaminants would also be present in the liquid. The DOE DCG for Ac-227 of 10 pCi/l may be exceeded since U-235, consistently exceeds its DCG in the decant sump. In order to prevent discharges of Ac-227 and Pa-231 exceeding the DOE DCGs for these contaminants they must be included in the future sampling of the decant sump liquid.
2. Page 6, Section 2.0, Treatment Process, third paragraph: This section fails to detail what will happen to the wastewater if it is found to exceed discharge limits for contaminant(s) following treatment at Plant 8. DOE should discuss additional treatment options. Thorium is the only contaminant discussed in the treatment section. Will this treatment also work on the other radio-isotopes present and potentially present (i.e. Ac-227 and Pa-231) in the wastewater? Treatment will be required to reduce the concentrations of various other radio-isotopes, since the concentrations of U-234, U-235, U-238, and R-226 in the decant sump liquid exceed their respective DCG's (as defined in the FMPC Annual Environmental Report).

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Mr. Andrew Avel
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If you have any questions about these conditions please contact me.

Sincerely,



Graham E. Mitchell
DOE Coordinator

GEM/acp

cc: Tom Winston
Jack Van Kley
Catherine McCord
Robert Owen
Lisa August