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**INFORMATION SUBMITTAL UNDER  
PARAGRAPH XIII (B) OF THE 1990 CERCLA  
CONSENT AGREEMENT - ORGANIC  
EXTRACTION - K-65 SILO RESIDUE SAMPLE  
ANALYSES**

**12-11-90**

**DOE/EPA  
DOE-413-91  
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LETTER**



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**Department of Energy**

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DOE-413-91

Ms. Catherine A. McCord, Remedial Project Manager  
U. S. Environmental Protection Agency  
Region V - 5HR-12  
230 South Dearborn Street  
Chicago, IL 60604

Mr. Graham E. Mitchell, DOE Coordinator  
Ohio Environmental Protection Agency  
40 South Main Street  
Dayton, OH 45402

Dear Ms. McCord and Mr. Mitchell:

**INFORMATION SUBMITTAL UNDER PARAGRAPH XIII (B) OF THE 1990 CERCLA  
CONSENT AGREEMENT - ORGANIC EXTRACTION - K-65 SILO RESIDUE SAMPLE  
ANALYSES**

Reference: Letter, DOE-1722-90, B. J. Davis to C. A. McCord and  
G. E. Mitchell, "Information Submittal Under  
Paragraph XIII (B) of the 1990 CERCLA Consent  
Agreement - Glove Box Treatability Testing," dated  
August 14, 1990

This letter provides supplemental information on treatability testing of the residue samples from the K-65 Silos. The referenced letter provided information on K-65 Silo sample treatability testing under Paragraph XIII (B) of the 1990 CERCLA Consent Agreement. The letter discussed a glove box, which was installed in the Pilot Plant Maintenance Building at the FMPC and would be used in treatability testing activities.

Since the submittal of the referenced letter, a second glove box has been installed in the Pilot Plant Maintenance Building. Both glove boxes will be used to perform organic extraction procedures on the K-65 Silo samples. Both glove boxes will vent to a common exhaust point and utilize HEPA and charcoal filtration.

As stated in the referenced letter, Section 121 (e) of CERCLA, the revised NCP 40 CFR 300.400 (e), and Section XIII (A) of the April 1990 CERCLA Consent Agreement provide an exemption from permitting requirements for removal or remedial actions conducted on site. More specifically, EPA's "Guide for Conducting Treatability Studies Under CERCLA" (EPA/540/2-89/058, December

1989), addresses compliance with Regulatory Requirements in Section 3.9 and exempts treatability studies under CERCLA from permit requirements provided the studies comply with Applicable or Relevant and Appropriate Requirements (ARARs) under Federal and State environmental laws.

Section XIII (B) of the 1990 CERCLA Consent Agreement requires the submittal of certain information for portions of response actions exempted from the administrative requirements. This information, included below, supports the fact that the substantive requirements have been satisfied for the glove box organic extraction procedures.

**1. Identification of each permit that would be required.**

State Requirements

Permit To Install (PTI) - In 1989, the Ohio Administrative Code (OAC) was revised to exempt a number of air emission sources from requiring a PTI prior to construction. Among the exemptions is "laboratory equipment used exclusively for chemical or physical analyses and bench scale laboratory equipment." [OAC 3745-31-03 (A)(1)(f)] Therefore, no PTI would be required for the installation of the glove boxes.

Permit To Operate (PTO) - OAC 3745-35-02 requires the owner/operator apply for and obtain a PTO for any air contaminant source. There are no exemptions in the PTO rule which would apply to the glove box.

Federal Requirements

National Emission Standards for Hazardous Air Pollutants (NESHAP) - 40 CFR 61.07 requires the owner/operator submit an application for approval of the modification of any existing source. However, since the radionuclide emissions from the glove boxes are expected to result in a lower dose than that prescribed in Section 61.96 (b), no application for approval under 61.07 needs to be filed.

**2. Identification of the standards, requirements, criteria, or limitations that would have to be met to obtain each such permit.**

State Requirements

OAC 3745-17-11 limits particulate emissions from this operation to 0.551 pounds per hour.

OAC 3745-17-07 limits visible emissions to no more than 20% opacity, as a six minute average.

OAC 3745-31-05 (A)(3) requires the use of best available technology to control emissions.

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3. **Explanation of how the response action will meet the standard, requirements, criteria, or limitations identified in Item 2 above.**

State Requirements

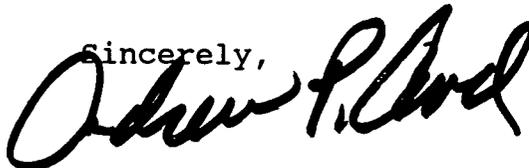
Since the glove boxes will utilize HEPA and charcoal filtration to remove particulates and VOCs, minimal emissions will occur. Additionally, the amount of particulate which will become airborne in the glove box is small due to the type of analyses involved. The estimated particulate emissions are 0.002 pounds per hour and no visible emissions are expected. The amount of VOC emissions are approximately 0.001 pounds per hour.

Federal Requirements

The use of the glove boxes will not result in emissions, which exceed NESHAP Subpart H dose criteria. Although detailed analyses were not performed, an engineering estimate was made to determine emissions from the boxes. Based on dose estimates used in the treatability testing calculations, the effective dose equivalent resulting from the expected duration of the glove box use (approximately three months) would be  $2.28 \times 10^{-2}$  mrem. (based on all particulates being emitted as Ra-226).

If you have any questions, please contact Jack Craig at (513) 738-6159.

Sincerely,



Andrew P. Avel  
FMPC Remedial Action  
Project Manager

DP-84:Craig

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