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**FEED MATERIALS PRODUCTION CENTER (FMPC), APPLICATIONS  
TO MODIFY PURSUANT TO 40 C.F.R. PART 61**

01/23/89

USEPA

DOE-FN

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COMMENTS

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 5**

**230 SOUTH DEARBORN ST.**

**CHICAGO, ILLINOIS 60604**

**JAN 23 1989**

REPLY TO THE ATTENTION OF:

Mr. James A. Reafsnyder  
 Site Manager  
 Feed Materials Production Center  
 United States Department of  
 Energy  
 P.O. Box 398705  
 Cincinnati, Ohio 45239-8705

Re: Feed Materials Production Center  
 (FMPC), Applications to Modify  
 Pursuant to 40 C.F.R. Part 61

Dear Mr. Reafsnyder:

In accordance with the provisions of 40 C.F.R. Part 61, we have reviewed information submitted on November 23, 1988, to the United States Environmental Protection Agency (U.S. EPA), to determine whether the following process modifications comply with the radionuclide emission standards promulgated in 40 C.F.R. Part 61, Subpart H: (1) FMPC #5-102, Graphite Milling Machine; and (2) FMPC Plant 6 Sump and Waste Treatment System.

In your letter dated November 23, 1988, which accompanied the submittals, you stated that the two applications were for a determination by the Administrator under 40 C.F.R. Section 61.06 of whether the equipment to be installed constitutes modification of the source, as defined in 40 C.F.R. Section 61.15. You requested that if U.S. EPA determined these installations to be modifications, that the two submittals should be considered as applications to modify under the requirements of 40 C.F.R. Section 61.07.

In our letter to you dated December 23, 1988, U.S. EPA stated that the submitted data indicated that the installation of the Graphite Milling Machine and the installation of the Plant 6 Sump and Waste Treatment System would result in an increase in the rate of radionuclide emissions to the atmosphere. The two installations therefore constitute modifications, as defined in 40 C.F.R. Section 61.15.

U.S. EPA has now completed a review of the information with the intent to approve or deny approval of modification pursuant to 40 C.F.R. Section 61.07.

In reviewing the submitted material, U.S. EPA uncovered the same types of errors and deficiencies that were present in the 14 applications for approval of modification which were received by our office on August 10, 1988. The errors and deficiencies are summarized below with references made to our letter to you dated December 23, 1988, which details the errors and deficiencies present in the 14 applications to modify.

Date Rec'd JAN 26 1989

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1. **Calculation Methods and Assumptions.** The dose projections are based upon prorating the dose using increased emissions. The text raises many questions and the calculation is based on faulty assumptions. These deficiencies are detailed in item 2, comments a through e, of the December 23, 1988, letter.

2. **Specific Enclosures.** U.S. EPA has the following comments regarding specific enclosures. The comments relate to deficiencies in DOE's calculations. Many of the calculations are confusing because they are so cryptic. Critical data is introduced into a calculation with little explanation about its origin or method of generation; assumptions are made with no explanations.

A. Graphite Milling Machine

1. Too few fission products are referred to in the "Methodology for Calculating the dose..." compared to the number referenced in Addendum, National Emission Standards..., Tables 2 and 3 found in Enclosures 14 and 15, of the August 10, 1988, submittals.
2. The particulate and uranium emission calculations in "Assumptions and Emission Factors", Section 4 differ in that average emissions are based upon 50 weeks per year while maximum emissions are based upon 52 weeks per year. In both cases, 52 weeks per year would be the correct period since this is the operating period for the plant.
3. Under "Assumptions and Emission Factors", item 2a, explain the source of the 25 lbs/hr term.
4. Explain how the total uranium and particulate emissions in 1 year from the nine existing sources (0.06 lbs/yr and 4.98 lbs/yr, respectively) was derived from filter analysis.

B. Plant 6 Sump and Waste Treatment System

1. Explain why the submittal is based on 1986 data when the text shows that 1987 data was available.
2. Explain why no control equipment or emission monitoring devices have been installed.

3. **Application Format.** As stated in the December 23, 1988, letter, the FMPC-UF<sub>6</sub> to UF<sub>4</sub> Process No. 2 Facility Application is to serve as a model for all 40 C.F.R. Section 61.07 applications. The draft Federal Facilities Compliance Agreement states that U.S. DOE shall submit all applications for approval of construction or modification pursuant to 40 C.F.R. Section 61.07 in the format of the UF<sub>6</sub> to UF<sub>4</sub> Process No. 2 Facility Application, provided that a list of specified information is included. This specified information is listed in the draft Federal Facilities Compliance Agreement and in the December 23, 1988, letter.

In summary, U.S. EPA finds the applications submitted on November 23, 1988, to be deficient in key information. Therefore, we are denying approval of these installations at this time. Until approval of these two installations are given, you are advised not to operate them as this action may constitute a violation of the Clean Air Act.

If you have any questions pertaining to the comments made in this letter, please contact Linda Hamsing at (312) 886-6814.

Sincerely yours,



David Kee, Director  
Air and Radiation Division (5AC-26)

cc: Al Colli  
Office of Radiation Programs

Weldon Dillow  
United States Department of Energy  
Oak Ridge Operations

Patricia Walling, Chief  
Division of Air Pollution Control  
Ohio Environmental Protection Agency

Charles E. Schumann, Director  
Southwestern Ohio Air Pollution Control Agency