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**REQUEST FOR WAIVER OF COMPLIANCE WITH  
40 CFR 61, SUBPART Q - PURSUANT TO SECTION  
112 (C) (1) (B) (II) OF THE CLEAN AIR ACT - FOR  
THE DEPARTMENT OF ENERGY - FEED  
MATERIALS PRODUCTION CENTER (FMPC)**

**03/15/90**

**DOE-791-89**

**DOE-FMPC/USEPA**

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**LETTER**

**Department of Energy**

**FMPC Site Office**  
P.O. Box 398705  
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March 15, 1990  
DOE-791-90

Mr. Valdas Adamkus, Regional Administrator  
U. S. EPA - Region V (5A-14)  
230 South Dearborn Street  
Chicago, Illinois 60604

Dear Mr. Adamkus:

**REQUEST FOR WAIVER OF COMPLIANCE WITH 40 CFR 61, SUBPART Q ---  
PURSUANT TO SECTION 112 (C)(1)(b)(ii) OF THE CLEAN AIR ACT --- FOR  
THE DEPARTMENT OF ENERGY - FEED MATERIALS PRODUCTION CENTER (FMPC)**

The National Emission Standard for Hazardous Air Pollutants (NESHAP) for Radon was promulgated on December 15, 1989. 40 CFR § 61.05c allows 90 days to achieve compliance with any new standard, or to apply for a waiver from compliance. EPA can grant a waiver for up to two years, or in the case of Subpart Q (the Radon standard), "EPA is prepared to discuss extended schedules for compliance" (54 FR 51674). DOE will need time to perform actions necessary to reduce radon emissions to the required level. Therefore, DOE is requesting a waiver of the compliance deadline.

The Department of Energy hereby requests a waiver of compliance with 40 CFR 61, Subpart Q, pursuant to Section 112 (C)(1)(b)(ii) of the Clean Air Act, for the FMPC located in Fernald, Ohio. A technical presentation was made to members of your staff on March 9, 1990, providing details of the DOE compliance program. Items 2, 3, and 4 below provide additional information regarding compliance.

On July 18, 1986, a Federal Facility Compliance Agreement (FFCA) was signed by DOE and EPA for the FMPC. In response to the FFCA, a Remedial Investigation and Feasibility Study (RI/FS) was begun under CERCLA. The NESHAP compliance program for radon at the FMPC relies mainly on implementation of the RI/FS.

The following additional information is provided in support of the compliance waiver request:

1. Processes Involved --- The following sources contain radium in sufficient concentration to emit radon-222 in excess of the standard prior to final remediation. Steps have been taken

to reduce emissions at five of the sources: foam application to the domes of the K-65 silos, earth cover over pits 1, 2 and 3, and the clearwell has a layer of water.

<u>Source</u>	<u>Estimated Radium-226 (pCi/g)</u>
K-65 silos	180,000
Metal oxide silo	4,286
Waste Pit #5	555
Clearwell	135
Waste Pit #3	125
Waste Pit #2	120
Waste Pit #1	30

## 2. Controls

- A. Final Remediation --- All of the above sources are part of the ongoing RI/FS. The alternatives for final remediation of the sources will be developed, screened, analyzed, and selected as part of the Feasibility Study. EPA will receive copies of all primary CERCLA documents to allow for comment on the selection process for final remedial action. Upon completion of final remediation, all sources will comply with the radon flux standard of the regulation.
- B. Interim Measures --- DOE has several interim actions in place or under consideration. There are currently a series of actions which are taken at the K-65 silos as part of effective operation and maintenance procedures and work practices for minimizing emissions and worker exposure. These actions include: installation of dome caps, camera surveillance, foam installation, intermittent operation of the radon treatment system, and administrative controls.

DOE and WMC0 are also investigating optimization of the Radon Treatment System (RTS). The RTS was designed for high volume intermittent closed-loop evacuation of the K-65 silos headspace, primarily to minimize worker exposure during activity at the silos (sampling, foaming, etc.). Efforts are now underway to optimize the operation of the RTS (running the system more frequently, etc.) to reduce radon emissions from the silos. Personnel exposure will be an important consideration in the optimization of use of the RTS.

DOE is conducting an Engineering Evaluation and Cost Analysis (EE/CA) to evaluate interim actions to reduce emissions from the K-65 silos including emissions that may result from a dome collapse. The selection of the preferred alternative will be documented in the EE/CA report. Alternatives under consideration include construction of an Environmental Isolation Enclosure, routine operation of the Radon Treatment System (with both evacuation back into the silo and to the ambient air after treatment as options), and filling the silos head-

space with sand. Pursuant to the new CERCLA 120 Agreement, the EE/CA is scheduled to be delivered to EPA by August 1, 1990.

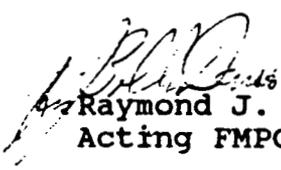
3. Increments of Progress --- Schedules have been developed for the RI/FS process. These schedules are included in the draft CERCLA Consent Agreement, which is expected to be final in the near future. Once the pertinent CERCLA documents (FS report, EE/CA, etc.) have been approved by EPA, work plans will be submitted which will provide the details of the corrective action implementation schedules. We believe that U.S. EPA approval of any RI/FS schedule extension for the K-65 silos pursuant to the provisions of the CERCLA Agreement should constitute a basis for approval of schedule extensions for this waiver request.
4. Monitoring --- Direct measurement of radon flux from the silos using EPA reference method 115 is not considered appropriate. The specifics of the 1984 FMPC radon flux measurement program were provided in the March 9, 1990 presentation to your staff. Measuring flux directly involves extensive data quality and health and safety problems. Therefore, the FMPC is planning to evaluate other techniques for determining radon flux from the silos. However, radon flux will be measured to demonstrate compliance after final remediation.

Specifics of the ambient radon monitoring program at the FMPC were also discussed at the March 9, 1990 meeting. One of the options under evaluation for determining radon flux is the use of ambient monitoring data and dispersion models. DOE will work closely with EPA staff on development of any radon flux determination techniques.

Please provide DOE with a written decision on the waiver request as soon as possible.

If you have any questions or require additional information, please contact Bobby Davis, of my staff, at FTS 774-6156.

Sincerely,

  
Raymond J. Hansen  
Acting FMPC Site Manager

DP-84:Davis

cc:

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WAW  
~~Franklin~~  
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