6218 G-000-104 .133

RE: PERMIT TO INSTALL - (SPECIAL TERMS: 1200 LBS/HR MAX ROTARY KILN CONTROLLED BY ENCLOSURE, FILTERS, HEPA, SCRUBBER, SCRUBBER TOWER & AFTERBURNER)

06/01/89

OEPA DOE-FN
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PTI

OhioEPA
State of Ohio Environmental Protection Agency
P.O. Box 1049, 1800 WaterMark Dr.
Columbus, Ohio 43266-0149

Original File Copy

Toward A Cleaner Environment 15 Year Anniversary 1972 - 1987

6218 -

Re: Permit to Install
Hamilton County

CERTIFIED MAIL

Richard F. Celeste
Governor

June 1, 1989

U.S. DEPT. OF ENERGY 14-1565
FEED MATERIALS PRODUCTION CENTER
JAMES A. REAFSNYDER, SITE MGR.
P.O. BOX 398705
CINCINNATI, OHIO 45239-8705

Dear Sir:

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions I urge you to read it carefully.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Board of Review pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations Section
Division of Air Pollution Control

TGR/gs

cc: US EPA
Southwestern Ohio Air Pollution Control Agency
Barbara Wojtowicz

Date Rec'd JUN 05 1989
Log C-1890
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OhioEPA

State of Ohio Environmental Protection Agency

6218 -

Permit to Install
Terms and Conditions

Application No. 14-1565
APS Premise No. 1431110128
Permit Fee: $390.

Name of Facility: U.S. DEPT. OF ENERGY, FEED MATERIALS PROD. CTR.

Person to Contact: JAMES A. REAFSNYDER, SITE MGR.

Address: P.O.BOX 398705
CINCINNATI, OHIO 45239-8704

Location of proposed source(s): 7400 WILLEY RD, PLT 8
CROSBY TWP, OHIO

Description of proposed source(s): 1200 LBS/HR MAX ROTARY KILN CONTROLLED BY ENCLOSURE, FILTERS, HEPA, SCRUBBER, SCRUBBER TOWER & AFTERBURNER.

Date of Issuance: JUNE 1, 1989

Effective Date: JUNE 1, 1989

The above named entity is hereby granted a permit to install for the above described source(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described source(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Richard L. Shank

Director

EPA 3156

Substantial construction for installation must take place within eighteen months of the effective date of this permit. This deadline may be extended by up to twelve months, if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records or reports pertaining to the construction, modification or installation of the above described source of environmental pollutants.

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

The specified permit fee must be remitted within 15 days of the effective date of this permit to install.

If the construction of the proposed source has already begun or has been completed prior to the date the Director of the Ohio Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

EMISSION SUMMARY

The air contaminant sources listed below comprise the Permit to Install for U.S. Dept. of Energy, Feed Materials Production Ctr. located in Hamilton County. The sources listed below shall not exceed the emission limits/control requirements contained in the following table:

Ohio EPA Source No.	Source Identification	BAT Determination	Applicable Ohio EPA rule	Allowable Emissions (lb/hr, lb/MMBTU, gr/DSCF,etc.)
P247	Rotary kiln, 1200 lbs/hr max.	See ST&C #5	3745-31-05 (A)(3) 3745-17-11 3745-18-06	*

*0.0112 lb/hr radionuclides; 0.015 lb/hr part.; 0.0154 lb/hr SO_2; 1.5×10^{-5} lb/hr lead; 0.0425 lb/hr OC; no visible emissions.

SUMMARY
TOTAL NEW SOURCE EMISSIONS

Pollutant	Tons/Year
Particulate (part)	0.0631
Radionuclides	0.0238
Sulfur dioxides (SO_2)	0.0647
Nitrogen oxides	Negligible
Carbon monoxide	Negligible
Organic material (OC)	0.178
Lead	6.3×10^{-5}
Sulfuric acid	0.235
Hydrogen fluoride	0.209
Hydrogen chloride	0.106

This condition in no way limits the applicability of any other state or federal regulation.

APPLICABILITY

This Permit to Install is applicable only to the air contaminant sources listed and does not include the installation or modification of wastewater disposal systems or solid waste disposal facilities. Separate application must be made to the Director for the installation or modification of any such wastewater disposal systems or solid waste disposal facilities.

NESHAPS REQUIREMENTS

The following source(s) are subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 61.

Source No.	Source Description	NESHAPS Regulation
P247	Rotary kiln, 1200 lbs/hr max.	40 CFR, Part 61, Subpart H

The requirements of 40 CFR Part 61 are also federally enforceable.

Pursuant to the NESHAPS, the source owner/operator is required to report the following milestones;

1. Date of commencement of construction (no later than 30 days after such date);
2. Anticpated date of initial start-up (not more than 60 days or less than 30 prior to such date);
3. Actual date of initial start-up (within 15 days after such date); and
4. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
Division of Air Pollution Control
Authorization and Compliance Unit
P. O. Box 1049
Columbus, Ohio 43266-0149

and Southwestern Ohio Air Pollution Control Agency
2400 Beekman Street
Cincinnati, Ohio 45214

PERFORMANCE TEST REQUIREMENTS

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report shall be submitted and signed by the person responsible for the test, describing the test procedures followed and the results of such tests. The Director or an Ohio EPA representative shall be allowed to witness the tests, examine testing equipment and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made thirty (30) days in advance and shall specify the source operating parameters, the proposed test procedures and the time, date, place and person(s) conducting such tests.

B. Two copies of the test results shall be submitted within thirty (30) days after the completion of the performance test.

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport, and disposal of any waste material generated by the operation of the sources.

REPORTING

Any reports required by the Permit to Install shall be submitted to Southwestern Ohio Air Pollution Control Agency.

PERMIT TO OPERATE APPLICATION

A Permit to Operate Application and a $15 application fee must be submitted to the appropriate field office for each source in this Permit to Install. In accordance with OAC rule 3745-35-02, the application shall be made at least ninety days prior to start-up of the source.

PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source are subject to public disclosure in accordance with OAC Rule 3745-49-03.

MALFUNCTION/ABATEMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

In accordance with OAC Rule 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the Southwestern Ohio Air Pollution Control Agency. Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment, that requires the shutdown or bypassing of said equipment, must be accompanied by the shutdown of the associated air pollution sources.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

1. The maximum process weight rate for the Rotary Kiln shall not exceed one thousand two hundred (1200) pounds per hour.

2. The Rotary Kiln system shall not operate more than eight thousand four hundred (8400) hours per year.

3. The existing Plant 8 rotary kiln (P180) and the new Rotary Kiln will not be operated simultaneously. The existing plant 8 rotary kiln may continue to operate until initiation of operation of the new Rotary Kiln for production. Prior to initiation of operation of the new Rotary Kiln for production the existing plant 8 rotary kiln (P180) shall be permanently shut down. This will result in no increase or a net decrease in radionuclide emissions from Plant 8 Rotary Kiln System.

4. A monitor to detect radionuclides and particulates will be installed in the exhaust stack. The monitor shall have two (2) components, an isokinetic stack sampler and a Geiger-Mueller counter. The monitor shall sound an alarm and initiate a system shutdown, when the collection of radionuclides increases to a predetermined level.

5. The Best Available Technology (BAT) for the Rotary Kiln is satisifed by the following:

   A. natural gas combustion,

   B. dust-tight material handling equipment and/or enclosure of material handling equipment with particulate emissions vented to a cartridge filtration system (99% removal efficiency) followed by a prefilter and HEPA filtration system (99.9% removal efficiency),

   C. venting of SO_2, H_2SO_4, HF, HCl, and NO_x emissions to a jet scrubber and scrubber tower (99% removal efficiency),

   D. venting of organic material emissions to an afterburner (99% removal efficiency), and

   E. venting of particulate from the rotary kiln to a sintered metal filter, jet scrubber, and scrubbing tower (99.5% removal efficiency).

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14-1565	U.S. DEPT. OF ENERGY-FEED MATERIALS PRODUCTION CENTER	$ 390.00
APPLICATION NUMBER	FACILITY NAME	AMOUNT DUE

STATEMENT OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY

- THIS PERMIT FEE IS DUE WITHIN FIFTEEN (15) DAYS OF THE EFFECTIVE DATE OF THIS PERMIT.
- FAILURE TO REMIT THE FULL AMOUNT DUE WILL RESULT IN REVOCATION OF THIS PERMIT AND AN ORDER TO CEASE ALL EMISSIONS.
- MAKE CHECKS PAYABLE TO THE **TREASURER OF THE STATE OF OHIO.**
- RETURN THIS STATEMENT WITH YOUR REMITTANCE USING THE ENCLOSED ENVELOPE.
- ALL QUESTIONS REGARDING THIS FEE SHOULD INCLUDE THE APPLICATION NUMBER SHOWN ABOVE.

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EPA 3157