OhioEPA

Re: Permit to Install
Washington County
Application No. 06-825

March 16, 1982

RECEIVED
MAR 17 1982
OHIO ENVIRONMENTAL PROTECTION AGENCY
SOUTHEAST DISTRICT

Shell Chemical Company
P. O. Box 235
Belpre, Ohio 45714

Attention: R. K. Hartig,
Plant Manager

CERTIFIED MAIL

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 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
250 East Town Street, Room 101
Columbus, Ohio 43215

Very truly yours,

Patricia P. Walling

Patricia P. Walling, Manager
Authorization & Compliance Section
Division of Air Pollution Control

PPW/jls

cc: Valdas Adamkus, Regional Administrator
U.S. EPA, Region V
SEDO, Air Pollution Group
SEDO, Office of Industrial Wastewater

Permit to Install
Terms and Conditions

Application No. 06-825

B009

APS Premise No. 0684010011

Permit Fee: $592.50

Name of Facility: Shell Chemical Company

Person to Contact: R. K. Hartig

Address: P. O. Box 235
Belpre, Ohio 45714

Location of proposed source(s): 2982 Washington Boulevard, Belpre Twp., Washington County, Ohio

Description of proposed source(s): 211.4 MMBH natural gas/#2 fuel-oil fired boiler and associated waste-water treatment facilities

Date of Issuance: March 16, 1982

Effective Date: March 16, 1982

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

Wayne S Nichols

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 no less than sixty days before the expiration of this permit 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.

The proposed source shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

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

This permit shall apply only to the source(s) shown on the application approved by the Ohio Environmental Protection Agency.

The appropriate District Office of the Ohio EPA or Local Air Pollution Control Agency shall be notified, in writing as to (a) the construction starting date (b) the construction completion date and (c) the date the facilities were placed into operation.

The permit holder shall conduct, or have conducted, performance testing of the subject air contaminant source(s) in accordance with procedures approved by the Agency and shall submit a written report, signed by the source owner, or his authorized agent, describing the test procedures followed and the results of such tests. The Director or his representative shall be allowed to witness the tests, examine testing equipment and acquire, or cause acquisition and/or submission of, data and information necessary to provide adequate assurance that source operation, process operating parameters and other conditions, together with testing procedures, provide a valid representation and proper characterization of the source's emissions and/or control equipment performance.

Such testing shall be planned, scheduled and implemented so as to provide for:

(1) Prior written notification to the Ohio Environmental Protection Agency, through the appropriate District Office or Local Air Pollution Control Agency where the original application was filed. Such notification 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.

(2) Submittal of the test results report within thirty (30) days after the test completion.

NO_2 emissions from this source shall not exceed 0.3 lb/MMBTU.

When firing this source with No. 2 Fuel Oil:

1. The SO_2 emissions from this source shall not exceed 0.513 lb/MMBTU or 102 lb/hr.

2. The total SO_2 emissions from this source and the two coal-fired boilers, B005 (F-1001) and B007 (F-1002), shall not exceed 1215 lb/hr.

3. The SO_2 emission rate from the coal fired boilers shall not exceed 2.25 pounds per million BTU.

The owner shall be responsible for the proper operation and maintenance of the wastewater treatment facilities.

The source described in this Permit to Install is subject to all applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency, 40 CFR 52.21, and as delegated to the Ohio Environmental Protection Agency and is federally enforceable.

REPORT ON THE PERMIT TO INSTALL APPLICATION AND DETAIL PLANS FOR INDUSTRIAL WASTEWATER-GENERATING FACILITIES TO SERVE THE SHELL CHEMICAL COMPANY LOCATED IN BELPRE, WASHINGTON COUNTY.

Logan, Ohio, December 21, 1981.

Introduction: On September 10, 1981, the Southeast District Office of the Ohio Environmental Protection Agency received a combined Air/Wastewater Permit to Install Application from R. K. Hartig, Plant Manager for Shell Chemical Company in Belpre, Ohio. The application was submitted for approval of an additional steam boiler to supply the plant with steam for process use. The boiler will be used as an alternate source at times when the existing sources are down for cleaning or repair.

Those documents submitted include:

One copy of: Application for Permit to Install #06-825. Received 9/10/81

One copy of: Additional proposed boiler information. Received 9/10/81

One copy of: Additional responses to Agency inquiries dated October 29, 1981. Received 11/2/81

Shell Chemical Company presently engages in the blending and production of various plastic compounds and requires a tremendous amount of steam for use in its various processes. The proposed boiler will be fueled by natural gas primarily, with #2 fuel oil to be used as a 'back-up' fuel only. The other boilers are coal-fired and their wastewater discharges are directed to an existing heat exchanger and discharged into the plant effluent pond. After nearly 2.5 hours retention time, the overflow from the pond is discharged through NPDES Permit Outfall F008001 to Davis Creek and subsequently, the Ohio River. There is presently no other form of wastewater treatment and

this scheme has had approval through a previous Permit to Install during plant construction.

Summary of New Facilities: The proposed boiler will offset the shutdown of an existing boiler in terms of strength and amount of wastewater discharged into the existing treatment scheme. The flow (50 gpm and .072 MGD) will contain exactly the same boiler treatment chemicals presently utilized in the existing boilers (Betz Laboratory Chemicals previously approved by Central Office).

The proposed effluent, after joining the existing boiler waste streams for heat recovery via an existing heat exchanger, will proceed directly to the plant effluent pond (fire-water pond). Here it will reside for nearly 2.5 hours with other plant once-through cooling waters (approximately 12,700 gpm) and be discharged, with no further treatment, through outfall F008001 to Davis Creek and the Ohio River.

Evaluation & Recommendations: Presently, outfall 001 is limited by the existing NPDES Permit to total suspended solids loadings. This proposed discharge will offer approximately .016 mg/liter of suspended solids to the effluent concentration, however, since this is an offset situation, another plant boiler will be out of service, and the impact of the proposal would be nil upon the effluent loading and extremely small upon the Ohio River. In addition, the chemicals used, and subsequently present in the 'boiler blowdown', have been previously approved by this Agency.

Settling in the pond, then, is not likely to be a viable form of treatment since a very high proportion of solids are present in the waste stream as dissolved solids. After evaluating this information, the plant effluent would contain approximately 3.9 mg/liter of total solids when

combined with the other once-through cooling waters. There would be a negligible impact upon the receiving stream from this offset boiler flow.

Cost & Construction Schedule: There will be 'no additional cost' that will be accrued with regard to wastewater treatment facilities as all components are existing. Commencement of construction will be upon receipt of the Permit to Install with completion by the 4th quarter 1982.

Conclusions: Based upon all the submitted information, there should be no net effect upon the treatment system presently in operation and no adverse effect upon the receiving waters. Therefore, it is recommended that this Permit to Install be approved.

Dennis L. Romankowski,
Environmental Scientist
Industrial Wastewater.

DLR/ah