



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

June 3, 2004

Mr. Matt Stanfield, Environmental
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Division of Environmental Services
348 South Erie Street
Toledo, Ohio 43602-1633

Mr. Robert Hodanbosi
Division of Air Pollution Control
Ohio EPA
P.O. Box 1049
Columbus, Ohio 43266-0149

Dear Sirs:

SUBJECT: Draft Permit to Install, FDS Coke Plant, L.L.C., Lucas County,
Application No. 04-01360

The Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD), is submitting the enclosed comments for the proposed Prevention of Significant Deterioration permit for the FDS Coke Plant, L.L.C. The purpose of these comments is to assure that the emission impacts from the proposed coke ovens has minimum impact on Monroe County, Michigan, and other areas of Michigan.

According to the Great Lakes States Air Permitting Agreement that was signed by Michigan and Ohio on November 3, 1988, we have reviewed the proposed project. The AQD is submitting the enclosed comments within the spirit of this agreement.

If you have any questions regarding the enclosed comments, please contact Mr. Randal S. Telesz, AQD, at 517-373-7089, or you may contact me.

Sincerely,

G. Vinson Hellwig, Chief
Air Quality Division
517-373-7069

Enclosure

cc/enc: Ms. Pamela Blakley, U.S. Environmental
Protection Agency, Region V
Mr. Mike Ahern, Ohio EPA
Mr. Jim Sygo, Deputy Director, MDEQ
Ms. Carrie Monosmith, MDEQ
Mr. Randal S. Telesz, MDEQ

**Comments for Preliminary Determination on the Draft
Permit to Install Application of FDS Coke Plant, L.L.C.
Oregon, Ohio**

Draft Permit No. 04-01360

Proposed Coke Plant

**Michigan Department of Environmental Quality
Air Quality Division
June 3, 2004**

1. Based on the information included in the preliminary determination, it does not appear that the Best Available Control Technology (BACT) was conducted appropriately with regards to maintenance operations of the heat-recovery steam generators (HRSGs) downstream of the coke ovens. BACT determinations typically do not separated maintenance from normal operations because maintenance is part of the normal operation of any process. This means that uncontrolled emissions would not be allowed during maintenance. In the federal regulations there are BACT provisions for startup, shutdown and malfunction; however, there are no provisions for maintenance as a separate determination. Normally, all operations would be shutdown during most maintenance. Therefore, a separate BACT analysis should not be conducted for uncontrolled emissions during maintenance operations. If uncontrolled emissions from maintenance operations can be separated for a BACT analysis for coke operations, then almost all maintenance operations for other sources can easily be justified based on limited uncontrolled emissions on a \$/ton.

We are requesting that the Ohio EPA reconsider separating maintenance from normal operations, and consider what options exist for emission controls or other means of reducing the uncontrolled emissions during bypassing of the HRSGs.

2. There is a fundamental flaw in this design when the maintenance operation is separate from the normal operation. What will be the contingency plan when one of the HRSGs is down for more than 14 days or if there are too many green pushes? Will one of the four coke batteries or one of the six process modules be shutdown temporarily during maintenance operations of the HRSGs?

Each of the six process modules (40 coke ovens) will have their waste gas exhausted through the afterburner tunnel routed to a HRSG followed by a dry scrubber/baghouse for sulfur dioxide and particulate control. The air pollution controls for the coke ovens have been undersized due to the coke oven exhaust gases bypassing their air pollution controls during servicing of the HRSGs. Since the control equipment is undersized, it is possible that one of the four coke batteries or one of the six process modules could be shutdown temporarily during maintenance operations of the HRSGs. Since maintenance operations should not be separated from normal operations, a BACT analysis is not necessary for the temporary shutdown of one of the four coke batteries or coke ovens.

Uncontrolled emissions of particulate matter (PM), PM with an aerodynamic diameter less than 10 microns in diameter (PM-10), (PM with an aerodynamic diameter less than 2.5 microns in diameter (PM-2.5) to be regulated in the near future) and sulfur dioxide (SO₂) could be eliminated during maintenance operations of the HRSGs. This would also eliminate uncontrolled toxic emissions, such as the metals (arsenic, cadmium, lead, manganese, mercury, nickel, etc.) from the coke ovens.

We are requesting that Ohio EPA consider revising the permit conditions to require shutdown of one of the four coke batteries or 40 coke ovens when coke oven gases are bypassing the HRSGs.

3. On November 3, 1988, the representatives of the Council of Great Lakes Governors, including Ohio, entered into the Great Lakes States Air Permitting Agreement. This agreement addresses the control of toxic emissions, including mercury, in the Great

Lakes Basin to minimize the impact of toxics on the Great Lakes. It was agreed that "Toxic Substance Management in the Great Lakes Basin Through the Permitting Process," requiring that Best Available Control Technology be installed whenever possible on all new and existing sources of persistent air toxic pollutants that have an impact on the Great Lakes' "Great Lakes Toxic Substances Control Agreement.". All permit applicants in the state will be required to identify and quantify potential emissions of the pollutants identified in Table A as a part of a routine New Source Review permit application.

TABLE A

| |
|-------------------------------------|
| Mercury |
| Alkylated Lead Compounds |
| Total Polychlorinated Biphenyl |
| Hexachlorobenzene |
| Benzo-a-pyrene |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin |
| 2,3,7,8-Tetrachlorodibenzofuran |

Furthermore, it was agreed "to insure consistency in the type of information which will be considered in permit reviews, and in the implementation of Best Available Control Technology, clear communications and informational exchange between Great Lakes states, and clarification of issues which EPA needs to take the lead on in order to assure effective implementation of the air provisions of the governors' and environmental administrators' agreements."

We are requesting that Ohio EPA apply the Great Lakes States Air Permitting Agreement.

4. The estimated mercury emission rate is 0.34 tons/yr, or 680 lbs/yr. Considering the mercury emission rates from various facilities, this emission rate of mercury is relatively high. The potential impact to ambient air has been estimated by the applicant, but there does not appear to be any assessment of the mercury impact via deposition in the local region, or any discussion about concerns for adding this load to mercury cycling over larger regions. Although these concerns may not be amenable to quantitation and risk assessment, they do raise the issue of what emission controls are proposed or could be considered. The MDEQ has concerns about elevated levels of mercury in the environment and are interested in pursuing available options for reducing anthropogenic emissions.

We are requesting that Ohio EPA describe any assessment or judgment on the concerns for this mercury emission rate, and what options exist for pursuing emission controls, such as carbon injection during normal operations and shutdown of one of the four coke batteries or 40 coke ovens during maintenance operations, or other means of reducing this source of emissions.

5. The air quality impact assessment for the coke ovens during bypass should address the PM-10 and SO₂ impacts on Monroe County, Michigan and other areas of Michigan.

Based on Ohio EPA modeling parameters, the MDEQ has modeled the maximum short-term emission rates for PM-10 and SO₂. The results of the modeling indicates that the 24 hour ambient impacts are 3.2 and 17.8 micrograms per cubic meter (ug/m³) for PM-10 and SO₂, respectively, at the Michigan and Ohio borders. It is the MDEQ policy for facilities in Michigan to limit the federal Prevention of Significant Deterioration (PSD) increments at 80 percent, namely, 29.6 and 72.8 ug/m³ for PM-10 and SO₂, respectively. The coke ovens will consume 10.8 and 24.5 percent of the 80 percent PSD increment for PM-10 and SO₂, respectively. However, the MDEQ has additional concerns. These concerns include the reduction in available PSD increments for SO₂ and the future PM-2.5 nonattainment status in Monroe County.

We are requesting that Ohio EPA review the 24-hour air quality impacts on Monroe County, Michigan and other areas of Michigan for uncontrolled PM-10 and SO₂ emissions during bypassing of the HRSGs.