


Division of Air Pollution Control

Response to Comments

Project: FDS Coke Plant, L.L.C. air permit-to-install (PTI) # 04-01360
Ohio EPA ID #: 0448020084

Agency Contacts for this Project

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On June 14, 2004, Ohio EPA issued a permit-to-install (PTI 04-01360) to FDS Coke Plant, L.L.C. (FDS) for the construction of non-recovery coke oven batteries at the FDS Coke Plant facility to be located in Oregon, Lucas County, Ohio.

On July 13, 2004, FDS, along with Sierra Club and the village of Harbor View, appealed the final permit to the Environmental Review Appeals Commission (ERAC). On September 20, 2005, Ohio EPA issued the administrative modification to the original PTI issued on June 14, 2004. The changes in the final permit were the result of negotiations between FDS and Ohio EPA to resolve the issues raised in the appeal, and were a result of design improvements proposed by FDS. On October 10, 2005, the village of Harbor View appealed the administratively modified PTI to ERAC. On May 31, 2007, ERAC issued a ruling (which was consistent with the village of Harbor View's grounds for appeal) that the Director was without legal authority and jurisdiction to modify the PTI while the underlying appeal on the original PTI before this commission remained an open and pending matter. This ruling nullified the administratively modified PTI issued on September 20, 2005.

Since then, Ohio legislators passed legislation on July 1, 2007, to grant Ohio EPA the authority to modify a PTI that is under appeal.

On December 14, 2006, FDS requested a one-time 12- month extension of their original June 14, 2004, permit. Ohio EPA granted the request for the extension of their original PTI, thereby, making the PTI valid until December 14, 2007.

On July 24, 2007, Ohio EPA received an application from FDS to administratively modify their June 2004 permit again.

This PTI modification application is essentially the same as the application for the administrative PTI modification issued on September 20, 2005. New information submitted as part of the application and application review includes a discussion on the applicability of the Acid Rain Program and information on hydrochloric acid (HCl) emissions.

On December 6, 2007, Ohio EPA conducted a public hearing concerning the proposed administrative modification of air pollution PTI number 04-01360. The purpose of the public hearing was to collect public comments concerning the proposal

Ohio EPA considered all comments received during the public comment period. By law, Ohio EPA has the authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format.

Comment 1: **It is outrageous to think that the EPA is considering anything less than the strictest environmental enforcement guidelines for this plant.**

Response 1: Ohio EPA believes that the permit, as drafted, represents the most stringent permit issued to a similar size and type facility in the U.S., if not the world. This permit requires state-of-the-art add-on controls for sulfur dioxide, particulate and mercury. It requires extensive emissions testing, monitoring, recordkeeping and reporting. After much research, Ohio EPA has not been able to find another similar coke manufacturing facility that utilizes mercury-specific controls. Ohio EPA will monitor compliance at this plant and will take action against violations within the guidelines established by Ohio EPA and U.S. EPA.

Comment 2: **What will be the effects as this mercury builds up, year after year, decade after decade, on children raised here, families living here?**

Response 2: Ohio EPA has no reason to believe that the amount of mercury expected to be emitted from this facility will likely cause any short-term or long-term adverse health effects. This belief is based on the results of the computer modeling analysis that calculates the expected maximum ambient concentrations of mercury outside the facility. Modeling results of potential emissions from the facility indicate that the emissions from the proposed coke facility will be within National Ambient Air Quality Standards (NAAQS) and Ohio's Air Toxics rules. These standards are set to be protective of public health. We believe that if FDS complies with the final permit, public health will be protected.

Comment 3: **The designer of this plant is building recovery plants that it claims minimize emissions and impacts on the environment. It appears that overall emissions in Schwelgern, Germany, and the proposed plant in South Korea are far less than the proposed plant here.**

Response 3: The referenced coke plants in Germany and South Korea utilize byproduct coke oven batteries and are of a different design than the nonrecovery coke oven batteries proposed by FDS. (Some residents may remember the old Toledo Coke facility. It was a byproduct coke oven facility.) Ohio EPA does not have the authority to require the permittee to install byproduct coke oven batteries. Instead, permittees decide on the type of facility they want to build based on the product the facility plans to produce, along with many other factors. Ohio EPA then has the responsibility to ensure that the proposed facility meets all applicable air pollution rules and regulations, including ensuring that the facility installs the best controls that are available. If all air pollution requirements are met, Ohio EPA must issue the permit.

Comment 4: **Uhde is not building a nonrecovery coke plant elsewhere. How do we know that emissions here are being minimized to the maximum extent possible?**

Response 4: Ohio EPA is requiring FDS to install and implement air pollution control measures that meet the requirements of best available control technology (BACT) and best available technology (BAT). BACT and BAT are emission standards that are based not only on environmental impacts, but also take into consideration the cost to install and maintain the air pollution control measures.

Comment 5: What extra requirements are being made for this plant since Uhde appears to be piloting this technology here in an urban area on the shores of the most biologically productive area in the Great Lakes?

Response 5: Ohio EPA has added numerous requirements to the FDS permit, with many of the requirements first appearing in the 2004 permit. The 2004 FDS permit was the first issued in the U.S. that contained a mercury emission limitation. The FDS permit contains the most stringent mercury emissions control requirement of any coke oven plant in the U.S. The FDS permit is the first permit in the U.S. to contain a provision requiring the permittee to design the plant with the capability of installing backup heat recovery steam generators in the future if it is determined by the Director that they are necessary. The FDS permit contains very comprehensive air pollution stack testing requirements designed to ensure that emissions from the plant comply with the limitations established in the permit. The permit contains extensive monitoring, record keeping and reporting requirements to ensure ongoing compliance with the permit allowable emissions.

Comment 6: Several commenters have requested that the mercury emission limitation be reduced to the permitted 2004 level of 36 pounds per year and not be increased by 15 pounds per year in the 2007 permit to allow for bypass venting.

Response 6: The difference between the 36 pound-per-year mercury emission limitation contained in the 2004 permit and the 51 pound-per-year limitation contained in the 2007 permit, is an allowance of 15 pounds per year of mercury emissions resulting from bypass venting for eight days per year per vent stack in the 2007 permit. Ohio EPA made the determination that FDS's request for limited bypass venting for heat recovery steam generator inspection and maintenance is warranted.

Comment 7: Several commenters have stated that there should be no provision allowing for bypass venting in the 2007 permit, but that the company should shut down the unit during inspections and maintenance.

Response 7: FDS will have heat recovery steam generators that are required to be shut down annually for inspection and maintenance. During these periods of heat recovery steam generator shutdown, emissions will be diverted to a bypass vent stack and emissions will not be controlled during these periods. During the review of BACT requirements for the 2007 permit, Ohio EPA made a determination based on economic data submitted by the company that it is not cost-effective to control emissions from heat recovery steam generator maintenance bypass emissions for

the limited duration requested by the company. The 2007 permit restricts bypass venting to a maximum of eight days per year per bypass vent stack.

Comment 8: The extra sulfur dioxide from the 2004 permit and the addition of 109 tons of hydrochloric acid are unacceptable for public health and the environment.

Response 8: The increased sulfur limit is a result of Ohio EPA's decision that limited bypassing is acceptable. This level of emission was evaluated to determine whether it met all applicable air pollution rules and regulations. Based on this analysis, the total emissions expected from this plant including the extra amount described above meet all applicable air pollution rules and regulations. Computer modeling of the emissions was also completed and the predicted maximum downwind concentrations of the pollutants from FDS did not cause or significantly contribute to exceedances of the NAAQS or PSD increments. The pollutants were also evaluated to determine whether the levels were protective of public health. Based on the analysis, the pollutant concentrations expected from FDS are not expected to adversely affect public health.

The new limit for hydrochloric acid (HCl) was the result of new information obtained since the 2004 permit was issued. In 2004, no data was available to indicate the amount of hydrochloric acid to expect from this kind of facility. Because no data was available, no limit could be established. Instead, Ohio EPA required emissions testing after the facility was built in order to learn enough to be able to establish a limit.

However, Haverhill North Coke Company (a.k.a. Sun Coke) in southern Ohio has since completed stack testing for HCl emissions. Based on the results of this stack testing, Ohio EPA developed an HCl emission factor for non recovery coke plants. Therefore, the Agency calculated HCl emissions based on this new information and included it in the FDS draft permit. Ohio EPA then evaluated the expected emissions of HCl for FDS to determine whether it met all requirements and was protective of public health. Based on this analysis, the Agency believes the limit is protective of public health.

Comment 9: Several commenters indicated that 1.1 million tons per year of CO₂ emissions from the coke plant is unacceptable, a CO₂ emission limitation should be added to the permit, and that CO₂ emissions should be controlled. Commenters indicated that there was a 2007 court decision which recognized the need for controlling greenhouse gases. It was also indicated that Ohio EPA set a precedent by establishing a mercury emission limitation in the permit and therefore has the authority to do the same with CO₂ emissions. A commenter requested delaying issuance of the permit until after CO₂ regulations are in place. Other commenters indicated that Ohio EPA needs to make the company accountable for CO₂ emissions by requiring carbon sequestration or the imposition of a

tax. A commenter indicated that failure to regulate CO₂ emissions is a failure by Ohio EPA to fulfill its mission under law.

Response 9: *Carbon Dioxide (CO₂) is a compound that has been identified as a key contributor to global warming. Ohio EPA believes that, in the future, there will be significant federal regulations implemented in order to reduce emissions of CO₂.*

Currently, Ohio laws and rules do not require this facility to install additional air pollution controls to reduce their emissions of CO₂.

Ohio EPA does have the authority to regulate mercury either through our air toxic rule or through our Best Available Technology rule.

Comment 10: Numerous commenters indicated that the proposed coke plant would place a heavy pollution burden on north Oregon, Harbor View and the area along Summit Street near the Toledo Yacht Club. A commenter indicated that the Toledo area air compliance monitors are not downwind from the areas major sources of pollution. For these reasons, numerous commenters requested continuous ambient air quality monitors installed on Summit Street in Toledo, in the village of Harbor View and at Wynn School in Oregon.

Response 10: Ohio EPA follows a complex procedure using U.S. EPA guidance and rules to decide where monitors must be placed in order to determine the ambient concentrations of criteria pollutants (particulate matter, sulfur dioxide, nitrogen oxides, ozone, carbon monoxide and lead). These procedures and rules were followed before deciding the location of the existing monitors. Siting additional monitors is possible, but many factors must be considered prior to such siting, including: (1) the type of pollutant desired to be monitored (each monitor only measures one pollutant); (2) the possible location of the monitor (siting criteria must be met); (3) who will operate and maintain the monitor; and (4) who will pay for the work of operating and maintaining the monitor and any sample analysis that needs to be done. Each year, the number, types and location of air monitors are evaluated and a plan submitted to U.S. EPA as required by federal regulations. This plan can change as changes in air quality occur. For instance, because of continued low concentrations for sulfur dioxide in the Toledo area, as of December 31, 2007, the Toledo air agency discontinued two continuous sulfur dioxide monitors.

The FDS permit did not trip any rules that require ambient monitors to be installed, so Ohio EPA cannot require that FDS install them. However, other groups (citizen groups, local municipalities, companies, etc.) are welcome to install monitors. If other groups decide to install monitors, Ohio EPA will work with them to help get them sited and set up properly in order to collect quality data.

Comment 11: Several commenters indicated that Ohio EPA should require that the names of the owners, operators and investors in this company be disclosed and made public. Commenters also requested that an

executive order be issued and/or legislation sought to require a compulsory background check on operations as is currently required in Ohio for landfills and large livestock facilities. Ohio EPA was requested to require that investors meet financial responsibility requirements by requiring a bond, insurance or a trust fund, and that taxpayers be indemnified.

Response 11: The ownership of the proposed source is not something Ohio EPA can consider when deciding whether a permit should be issued or denied. The Division of Air Pollution Control requires that the permit-to-install application be signed by an individual meeting the requirements of OAC rule 3745-31-04. For our review, what matters most is whether the proposed source complies with all applicable air pollution requirements. The Agency's goal with every permit is to make sure the proposed source complies with all air pollution requirements and that the permit is protective of public health. Ohio EPA does not have the authority to require background checks on companies or to determine the financial responsibility of a company as part of the air permit review process. We reviewed the information provided by the applicant and information found from other sources (including information provided to us from citizens) to determine whether the proposed source would comply with all applicable air pollution requirements. If, based on this information, it appears that the proposed source would comply with all applicable air requirements, then Ohio EPA is required to issue a permit.

Comment 12: Who is liable for environmental problems that are inevitable to occur?

Response 12: If FDS violates the terms and conditions of the air permit, FDS will be liable for the violations. Correspondence regarding potential violations will be addressed to the responsible official for the facility. The name of the responsible official for the facility is listed in the permit-to-install application.

Comment 13: Why does there even need to be a discussion on air quality control? It should be the best no matter what the decision.

Response 13: The FDS permit-to-install requires the use of BAT and BATC to control air pollution from this facility. State and federal guidelines for the determination of BAT and BACT require that the determination of what is considered BAT or BACT must consider the annualized cost to install, maintain and operate the pollution control, along with the amount of emissions reduction that can be achieved by a particular means of air pollution control. Ohio EPA does not have legal authority under state or federal air pollution control regulations to require the installation of an air pollution control technology that may result in the highest level of pollution control while also being cost-prohibitive to a company to install. BAT and BACT were developed by Ohio EPA and U.S. EPA to make it possible to require that a company install the best air pollution control technology that is still economically reasonable.

Comment 14: **In approximately 40 years, when this plant is not in operation, how will the "eyesore" be handled?**

Response 14: When any manufacturing facility shuts down, they must follow state and federal clean-up standards to clean up the site. Ohio EPA's Division of Air Pollution Control is typically not involved in this process. Any evaluation of a closed site is neither part of the air permit review process nor part of this permit.

Comment 15: **Why is there limited communication from Ohio EPA with the citizens of Oregon?**

Response 15: Ohio EPA followed the same established procedures for providing notice to the public statewide as with all other significant air permits. Ohio EPA has made an effort to inform the public of the FDS Coke Plant project by publishing a public notice of receipt of the air permit application in the *Toledo Blade* and also published a public notice for the public hearing in the *Toledo Blade*. The public notice contained contact information related to the permit so that those interested in learning more about the project could review a copy of the permit application and draft permits. Two news releases regarding the draft permit and public hearing also were issued by Ohio EPA. Ohio EPA sent a citizen advisory detailing the public hearing to more than 400 people on our interested parties mailing list, including anyone who attended a hearing on this facility in the past. Ohio EPA also took an extra step not normally taken for air permits by placing a copy of the 2007 permit application on the Agency's Web site; downloadable at <http://www.epa.state.oh.us/pic/fds.html>. The draft permits-to-install for the FDS Coke Plant and FDS Co-Generation Facility also were placed on Ohio EPA's Web site.

Comment 16: **According to the 2004 permit and 2007 proposed permit, the amount of pollutants is almost a 300 percent increase over the actual pollutants from the old Front Street coke plant from 1987 to 1991. How is this an improvement in today's greening world?**

Response 16: It is difficult to compare the old Toledo Coke Plant with the proposed FDS plant because (1) the Toledo Coke Plant used older technology that resulted in more emissions per ton of coke produced (including toxics); (2) the FDS plant is much larger than the old Toledo Coke Plant; and (3) the air emissions inventory for the former Toledo Coke Plant did not include all emissions units that existed at the facility. For comparison purposes, the former Toledo Coke facility on Front Street processed 166,645 tons of coal in 1991 while the FDS Coke Plant will be permitted to process up to 2,058,600 tons of coal per year (1,135 percent more than Toledo Coke produced in 1991). FDS uses a new coke plant technology that destroys a large portion of the pollution that would be emitted if the old technology was used. It is possible that the emissions for some pollutants will be higher for the proposed new coke plant versus the old coke plant. This is because the proposed coke plant has a much higher capacity than the old coke plant.

Comment 17: **The commenter could not find a specific prohibition against usage of chromium in the cooling water. As chromium is not discussed in the emissions section of the permit, it was assumed it is not intended to be used. However, for clarity, the permit should include specific language prohibiting usage of chromium.**

Response 17: FDS will not use chromium-based corrosion inhibitors in the cooling tower water, and thus are not subject to 40 CFR Part 63 subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers. The final permit for the co-generation plant will specify that chromium-based water treatment chemicals will not be used in the cooling water for the FDS Co-Generation Facility.

Comment 18: **Where is the cooling water from?**

Response 18: The company proposes that make-up cooling water comes from the city of Toledo's water supply.

Comment 19: **A commenter requested that groundwater and surface water monitoring systems be installed in Harbor View with the equipment being inspected independently without government or plant involvement**

Response 19: This permit was issued by Ohio EPA's Division of Air Pollution Control for air pollution emissions from the proposed installation. As part of issuing this permit other divisions of Ohio EPA, including the Division of Surface Water and the Division of Drinking and Ground Waters were consulted. After consulting with these divisions, it was determined that no groundwater or surface water monitoring systems are required as part of this air PTI.

Comment 20: **Why isn't BAT being used?**

Response 20: This permit requires that BAT be used. As defined by OAC rule 3745-31-01 BAT means any combination of work practices, raw material specifications, throughput limitations, source design characteristics, an evaluation of the annualized cost per ton of air pollutant removed and air pollution control devices that have been previously demonstrated to the Director to operate satisfactorily in this state or other states with similar air quality on substantially similar air pollution sources. The BAT requirements in this permit are listed next to the applicable citation of OAC rule 3745-31-05(A)(3).

Comment 21: **Has all technology been explored including new plants in Korea and Japan?**

Response 21: We have no information indicating that there are more stringent emission limitations for any other coke plants in the world (including Korea or Japan) than those contained in the draft 2007 FDS Coke Plant permit. This permit underwent extensive review for available pollution control measures. The air pollution control measures contained in the permit

comply with BAT and BACT. BAT and BACT are emissions limitations and control measures that take into consideration the annualize cost of operation of the pollution controls. The air pollution control measures used on the coke ovens and quench towers also are required to comply with maximum achievable control technology (MACT) requirements.

Comment 22: **A warning system should be installed to alert residents if something goes wrong so there can be immediate notification.**

Response 22: Ohio EPA's Division of Air Pollution Control does not have the authority to require a warning system to alert residents if there is a malfunction at the facility. The general terms and conditions of the permit do include a requirement under Part I Section A.2 that Ohio EPA be immediately notified of malfunctions according to OAC rule 3745-15-06.

Comment 23: **What is the megawatts-to-emissions ratio for this facility compared to a conventional coal-fired power plant?**

Response 23: Ohio EPA has not done this type of calculation because it is not germane to the air permit requirements.

Comment 24: **The algae problem in Maumee Bay is not being addressed.**

Response 24: The algae problem in Maumee Bay is not related to the air permit for FDS Coke. This is beyond the scope of the review of this permit.

Comment 25: **The particulate matter, mercury and sulfur dioxide emissions from the coke plant will cause an increase in asthma and autism.**

Response 25: The requirements contained in the FDS permit are designed to be protective of public health. These requirements detail what the proposed source must do in order to comply with Ohio EPA and U.S. EPA rules and policies. The rules and policies are designed to ensure the emissions associated with a proposed new source would not cause adverse health and welfare effects to citizens near the source.

As part of our analysis, computer modeling was done to determine the maximum concentrations of pollutants downwind of the proposed facility. The ambient impact due to the criteria pollutants did not cause or significantly contribute to exceedances of the NAAQS or PSD increments. Based on the analysis, the pollutant concentrations expected from FDS are not expected to adversely affect public health.

Also, see response to Comment 2.

Comment 26: **Why does the public have no choice in accepting the consequences of the coke plant? One commenter requested that the decision of whether the coke plant should be allowed to locate here should be put up to popular vote.**

Response 26: Ohio EPA issued the draft permit, because the proposed emissions from the plant comply with all air pollution regulations and air pollution modeling criteria. Ohio EPA cannot dictate what types of businesses it issues permits to as long as the proposed installation complies with all air pollution regulations. The types of businesses that can be located at a specific location in Toledo and Oregon are determined by the Toledo-Lucas County Plan Commission and the Oregon Building and Zoning Department.

Comment 27: Several commenters stated that the village of Harbor View is an Environmental Justice area and that FDS should be required to buy the citizens' homes that want to sell their home.

Response 27: As a recipient of federal funding, Ohio EPA is under a legal obligation to comply with Title VI of the Civil Rights Act. We have fully reviewed the guidance developed by U.S. EPA for states regarding environmental justice. We meet our legal obligations and implement federal guidance through both our technical review and our public involvement activities on permit applications.

Additionally, any recipient of federal funding, such as Ohio EPA, must comply with Title VI of the Civil Rights code. Under U.S. EPA's Title VI implementing regulations, States are prohibited from using criteria or methods of administering its program which have the effect of subjecting individuals to discrimination because of their race, color or national origin. As a result, States may not issue permits that are intentionally discriminatory or issue permits that have a discriminatory effect based on race, color or national origin. While we do not have a specific environmental justice policy to follow, we consider all comments raised regarding environmental justice to ensure we comply with Title VI.

For more information on Environmental Justice, please visit U.S. EPA's Web site at <http://www.epa.gov/oecaerth/environmentaljustice/index.html>

Comment 28: The city of Toledo is on the bubble of non-attainment for lead and particulate matter.

Response 28: It is true that Lucas County is marginally close to the attainment standard for PM_{2.5} emissions. Lucas County is well within attainment of the existing lead standard. U.S. EPA is currently reviewing the lead standard and has requested comments on the process in Advanced Notice of Proposed Rulemaking, released in December 2007. Ohio EPA cannot use the draft lead standard range and averaging times to evaluate current projects. Ohio EPA will address the revised lead standard if and when the current standard is modified. Air pollution dispersion modeling results for the proposed installation show that the proposed emissions will not adversely affect attainment.

Comment 29: The area has the highest allergy concentration in the country.

Response 29: An allergy ranking is not used as part of Ohio EPA's permit review process when determining whether to issue an air permit. Ohio EPA is required to issue an air permit if the proposed emissions comply with all applicable air pollution regulations and the proposed emissions do not adversely impact air quality. It is the Ohio EPA's opinion that these criteria have been met in the case of this air permit. If you have further concerns about allergies and health impacts, please contact your local health department. Also, see response to Comment 2.

Comment 30: Several commenters indicated that the proposed installation would be noisy, and have requested a noise limit be set in the permit, along with a requirement to install a noise meter near the facility.

Response 30: Noise ordinances are developed at the local level. Ohio EPA does not regulate noise and does not have authority to add noise-related requirements to an air permit. If you have concerns about potential noise from the proposed plant, please contact your city officials regarding noise ordinances.

Comment 31: A number of commenters requested a 30-day extension to the public comment period.

Response 31: Ohio EPA has considered this request and has decided not to extend the public comment period.

Comment 32: How much water is used and what happens to it?

Response 32: This public comment period is only for issues related to the air permit for the facility. The company has indicated that all process water from the coke plant be diverted to a settling pond located onsite and that no process water will be discharged directly to waters of the state or to a public sewer system. A portion of the cooling tower water from the co-generation facility may be discharged to the city of Toledo's sewer system. Any such discharges to the sewer system will be monitored by the city of Toledo. If the company changes plans and wants to discharge directly to waters of the state, it will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit from Ohio EPA.

Comment 33: The total daily exposure from all sources (all companies) located in the area of the coke plant should be evaluated along with the emissions from the coke plant.

Response 33: Each criteria pollutant that has levels of potential emissions above the prevention significant deterioration (PSD) modeling thresholds, must first be evaluated by Ohio EPA to determine whether the project has a significant ambient impact as defined by the PSD significant impact levels (SIL). If the project has insignificant impact for a given pollutant, no additional modeling is necessary for that pollutant. The project, by definition, does not have significant impact for that pollutant.

If the project modeling indicates that it has impacts above the SIL for a pollutant, additional comprehensive modeling analyses are performed to determine whether the NAAQS will be protected and whether this project and all other PSD applicable (i.e., new) source emission increases in the region do not combine to exceed allowable degradation levels in this attainment area. Clean areas are not to be degraded back into nonattainment. This is termed prevention of significant deterioration. This project met these requirements.

The state goes beyond federal modeling requirements for smaller projects or pollutant increases, and requires modeling for criteria pollutants and toxics that exceed the state's significant emission rates. However, these requirements only apply to the project that is the subject of the permit and holds it to an acceptable incremental impact (see Ohio EPA Engineering Guide #69). These acceptable incremental impact levels are well below the national standards and are aimed to prevent individual projects from having excess impacts in an area.

Comment 34: As technology improves, require the company to upgrade pollution controls as they become available.

Response 34: There is no state or federal regulation in place that would allow Ohio EPA to require a company to upgrade pollution controls as they become available in the future. This could only be required if the company made a modification to its process, reconstructed a process or in the case of a new or revised regulation required air pollution control upgrade.

Comment 35: In the Steubenville study, many of the mercury emissions fell close to the plant. Ohio EPA should analyze the deposition of mercury on Ohio's soil.

Response 35: Ohio EPA believes that the amount of mercury expected to be emitted from FDS is not enough to cause adverse health effects. This expectation is based on the results of the computer modeling that calculates maximum downwind concentrations of mercury. Although the analysis did not include analysis of mercury deposition in Ohio soil, the expected mercury concentrations were low enough that this facility should not add significantly to the mercury burden in the soils near the plant.

Comment 36: Ohio should reconcile all mercury emissions in the state. Then, as agreed to by Governor Taft, Ohio should reduce and virtually eliminate mercury emissions in the state.

Response 36: Ohio EPA conducts several emissions inventory programs that, in part, collect information on mercury emissions. One of these programs is the Toxic Release Inventory Program. This program requires companies to submit data on the release of various chemicals into the air, land or soil. More details on the results of this program can be found at: <http://www.epa.state.oh.us/dapc/tri/tri.html>. Additionally, Ohio EPA collects an emission inventory that includes not only common criteria pollutants (particulate, sulfur dioxide, nitrogen oxides, etc.), but also a

complete inventory for toxic compounds (including mercury). You can find out more about this inventory at:

<http://www.epa.state.oh.us/dapc/aqmp/eiu/eiu.html>.

As for programs to reduce mercury emissions, Ohio EPA has implemented several such programs. These programs resulted in significant reductions of mercury emissions. For more information on mercury reduction efforts statewide and nationwide, please go to:

http://www.epa.state.oh.us/ocapp/p2/mercury_pbt/mercury.html.

Comment 37: **Ohio EPA should create a standard of zero emissions as in Sweden. Sweden will not permit a new factory of any kind to be built that emits anything.**

Response 37: Ohio EPA agrees that Sweden is taking aggressive measures to reduce air pollution emissions. However, it is our understanding that Sweden does not have a standard of zero emissions for all pollutants. Instead, we believe your statement is based on the goal the city of Stockholm, Sweden, has set for CO₂ emissions in the city. Their goal is to have a net zero emission of carbon dioxide by the year 2050.

It is our understanding, however, that Sweden has similar air pollution requirements to Ohio's. Industries, automobiles and other sources emit pollutants in Sweden, just as they do in Ohio. New factories in Sweden are not required to have zero emissions.

Legislative action would be needed for U.S. EPA or Ohio to create a zero emissions policy in Ohio, and any such legislation would require significant public support.

Comment 38: **There is lead in toys, paint and blinds. The coke plant has lead emissions and we are not being given the chance to not breathe lead.**

Response 38: The requirements contained in the FDS permit are intended to be protective of public health. These requirements detail what the proposed source must do in order to comply with Ohio EPA and U.S. EPA rules and policies. The rules and policies are designed to ensure the emissions associated with a proposed new source would not cause adverse health and welfare effects to citizens near the source.

Comment 39: **Why did the state of Kansas reject the plant?**

Response 39: The press release from the Kansas Department of Health and Environment (KDHE) states that the permit was denied due to the contribution of carbon dioxide and greenhouse gases to climate change and the potential to harm the environment. KDHE indicated that it will work to engage stakeholders to establish goals for reducing carbon dioxide emissions and strategies to achieve them.

Comment 40: **How can we have a plant with emissions going into waters?**

Response 40: FDS is expected to recycle up to 90 percent of the wastewater generated onsite. The company has indicated that all process water from the coke plant be diverted to a settling pond located onsite and that no process water will be discharged directly to waters of the state or to a public sewer system. Since no wastewater will be discharged directly into waters of the state, including the Maumee River or Lake Erie, no discharge permit is required. If the company proposes to operate in a manner different than that proposed to Ohio EPA's Division of Surface Water, then the company may need to apply for and obtain water discharge permit.

Comment 41: What fines (civil/criminal) liabilities are in place? Are their penalties if they go over that amount?

Response 41: Violations of the air permit terms and conditions can result in civil or criminal enforcement action. Depending on the circumstances and severity, violation of an emission limitation does not always result in a monetary penalty being assessed to the company. When a monetary penalty is imposed, Ohio EPA follows the U.S. EPA's civil penalty policy to determine the penalty amount imposed for violations. A penalty of up to \$25,000 per day per violation can be assessed. In addition to paying a civil penalty, Ohio EPA may also require the company, through Director's Final Findings and Orders, to take other actions determined to be necessary to comply with permit terms and conditions or Ohio laws and/or rules. Criminal liabilities may also be assessed for specified actions or violations.

Comment 42: The current permit grants increases in mercury and lead emissions. These pollutants are linked to learning disabilities.

Response 42: The requirements contained in the FDS permit are intended to be protective of public health. These requirements detail what the proposed source must do in order to comply with Ohio EPA and U.S. EPA rules and policies. The rules and policies are designed to ensure the emissions associated with a proposed new source would not cause adverse health and welfare effects to citizens near the source. Also, see response to Comment 2.

Comment 43: There is no accountability during venting.

Response 43: Ohio EPA has restricted the company to a maximum of eight days per year of bypass venting per bypass vent stack. The company is required to maintain records of all periods of bypass venting and report these bypass venting events. The air quality modeling that was conducted for this permit included these periods of bypass venting in the analyses. The air quality modeling results indicated that the air pollution emissions during these bypass venting periods are well within levels set to be protective of human health and environment, and did not cause or significantly contribute to exceedances of the NAAQS or PSD increments.

Comment 44: **The concentrations in a plume do not always correspond to levels on the ground.**

Response 44: Ohio EPA agrees that concentrations of a given pollutant do not always correspond to ground level concentrations. That is why air quality computer modeling is used to estimate ground level concentrations from emission sources. If a new source project would have significant impact (per U.S. EPA criteria), the combined impact of all contributing sources and an additional background value to account for distant or small, unmodeled sources are used to estimate the total ground level concentrations throughout the area.

Comment 45: **Were benzene emissions from the plant addressed?**

Response 45: Benzene is a hazardous air pollutant as defined by U.S. EPA and is included in the total allowable hazardous air pollutant emissions. Benzene is also a volatile organic compound (VOC) and is included as a component of the VOC emission limit. FDS would be required to comply with two federal regulations that regulate emissions of hazardous air pollutants (which include benzene) from the plant. These two regulations are: 40 CFR Part 63 subpart L - National Emission Standards for Coke Oven Batteries; and 40 CFR Part 63, Subpart CCCCC - National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks. The potential benzene emissions from the facility are 0.531 ton per year.

Comment 46: **If other states can deny them (coal plants), then why aren't we doing the same?**

Response 46: In order for Ohio EPA to deny issuance of a permit-to-install, a determination would have to be made that the proposed installation could not comply with all air pollution policies and regulations. This is not the case with the FDS permit, so Ohio EPA does not have technical justification for denying issuance of a final permit modification to the company.

Comment 47: **If this company is as safe as this agency is telling the public, please tell me why did this agency rush this permit through, working day and night to do it, so that this company would not have to meet the more stringent requirements that took affect days after this permit?**

Response 47: Ohio EPA strives to meet the needs of all of its customers, both industrial and citizen. Based on FDS's desire to obtain a permit prior to the redesignation, we decided to work toward the goal of a final decision by then. However, we also are committed to making sure every permit we issue meets all applicable air pollution regulations and are, therefore, protective of public health and welfare.

Comment 48: **The very thought of 51 pounds of mercury to be released into my air is obscene.**

Response 48: Mercury is a naturally occurring element in the earth's crust and is present in trace quantities in coal. Any coal combustion process and coal coking process using coal containing this mercury results in mercury emissions being released into the ambient air. Ohio currently has no prohibition on the combustion of coal. Ohio EPA was the first to regulate mercury emissions on any coal coking process in the U.S. in the 2004 FDS Coke permit-to-install. The 2007 draft permit-to-install for FDS contains the most stringent mercury emissions control requirement of any non-recovery coke oven battery permit in the country. Air quality modeling results indicate that this level of mercury emissions complies with Ohio EPA's Air Toxics Policy.

Ohio EPA requires that FDS:

1. use activated carbon injection for mercury emission control;
2. conduct initial and periodic emissions testing for mercury following precise U.S. EPA-approved methods;
3. analyze the coal that is used in the process for mercury and chlorine content on an ongoing basis. (some data suggests that the chlorine content may affect the resulting mercury emissions); and
4. install, calibrate and operate a mercury emissions monitoring system.

Based on all of the above mercury requirements, Ohio EPA believes that the permit will protect public health and welfare by restricting the allowable mercury emissions to the lowest levels practically and technically feasible.

Comment 49: When it's time for notice of violations to be issued, and there will be many of those, who will Ohio EPA cite?

Response 49: Should FDS Coke violate any of its permit requirements, Ohio EPA would cite FDS Coke Plant, L.L.C. The violation would be sent to the attention of Kathleen Jarema.

Comment 50: I like to call this public hearing "the appeasement hearing" because that's why they have them. It certainly isn't to address our concerns, it's just to say we had a meeting for the public. Come on, I have been here so many times and have given data to justify my concerns pertaining to our environment and it has always gone on deaf ears. The decision has been made, they have already approved the permit, and this is nothing more than a game of let's tell the tree hugger's, bored housewives, etc, they have an opportunity to address their concerns. Oh, they will respond, but they make all the excuses for this company they can think of.

Response 50: Ohio EPA recognizes that its mission and vision cannot be achieved without input from Ohio citizens. The Agency places a high priority on public involvement and encourages citizens to become involved in our decision-making processes. Public involvement efforts are designed to

enable Ohioans to be a part of environmental decisions that affect their life.

Ohio EPA does not have unlimited authority to address all public concerns related to a permit. Some concerns may be regulated by other state, federal or local agencies. Ohio EPA considers citizen concerns in areas the Agency regulates and refers other concerns to the appropriate agency.

Ohio EPA values public input that is received and when the Agency agrees the requested change is technically and legally appropriate; the final permit will be revised to incorporate the comment. In many instances, Ohio citizens have provided valuable information that has been important in Ohio EPA's decision-making process. For example, Ohio EPA incorporated a number of public comments made on the 2004 FDS Coke draft air permit into the final 2004 air permit, including regulation of mercury emissions.

Comment 51: **The federal court ruled in the spring that greenhouse gases must be controlled. So, I would also like to know how you have not been brought into the court system because now you have broken the law. I assume because you are Ohio EPA you can just break the law and everyone just turns their heads.**

Response 51: See the response to Comment 9.

Comment 52: **The Director should not have authority to change the limits without a permit modification.**

Response 52: Emission limitations are based on the best available scientific knowledge of a process. It is normal practice for Ohio EPA to approve a request to increase the allowable emissions rate established under BAT or BACT requirements when new information, such as when test results indicate that the initial emissions estimate was too low, provided that: 1) the required air pollution control equipment was installed and operated within the original design parameters; 2) the requested emissions increase complies with all applicable air pollution regulations; and 3) the requested emissions increase does not pose an adverse impact as determined by dispersion modeling. If, after initial stack testing, it is determined that the initial emissions estimates were too low and all of the above requirements have been met, FDS will still be required to obtain a PTI modification that would first be issued as a draft permit. The draft permit would be subject to a 30-day public comment period prior to having these revised emission limitations issued as a final PTI modification.

Comment 53: **This facility should be required to install continuous monitors for the pollutants the coke plant will emit.**

Response 53: Ohio EPA has required the installation of a continuous sulfur dioxide emissions monitoring system, a sorbent trap mercury emissions monitoring system, temperature monitoring of the common battery tunnel

to assure adequate combustion of VOC emissions and a baghouse leak detector to monitor the performance of the baghouse for particulate emissions control. Ohio EPA has determined that this level of monitoring is appropriate and that a continuous emissions monitoring system for every pollutant emitted is not warranted in this case.

Comment 54: **The Toledo area should be required to participate in the U.S. EPA AirNow program where people living in the Toledo area could readily access information on the quality of the air on a daily basis. This would be helpful to Toledo residents with respiratory or other health problems that are caused by air emissions in the region and beyond.**

Response 54: The city of Toledo supports and participates in the AirNow program (<http://airnow.gov/>). The Web site contains current and recent actual ambient air quality information for ozone and PM2.5 in the Toledo area. Unfortunately, budget constraints prevent the city of Toledo from fully participating in the air quality index forecasting program portion of AirNow. As funds are made available, the city anticipates expanding involvement in the program.

Comment 55: **The issue of the FDS Coke Plant arose while I was president of the Academy of Medicine of Toledo and Lucas County. This organization represents the thousands of physicians in our community. We are extremely concerned about the public health implications of a coking plant in the middle of a large community. No amount of mercury is healthy for any of us, as you know. Has there been any medical input into this plan?**

Response 55: There has been no specific medical input into the review of this permit. However, the emissions limitations were established in this permit to be protective of health. Air quality modeling results for criteria pollutants indicate that emissions from the project are less than NAAQS. NAAQS are health-based standards. Hazardous air pollutant emissions from the proposed installation also comply with federal hazardous air pollution standards that are based on risk to human health.

Comment 56: **According to the Lake Erie Commission, 78 percent of Ohio's coast cannot support the values of a functional ecosystem, and 90 percent of Ohio's coastal marshes have been filled. These facts cry out for making conservation of existing coastal wetlands a priority. Conservation of coastal wetlands is a necessity for protecting water quality, wildlife habitat and the Lake Erie fishery. Placing this coke plant with its 7.6 million pounds of new pollutants per year on the shores of Lake Erie on the banks of Duck and Otter creeks is an environmental travesty and will only hasten the deterioration of Lake Erie. We cannot be serious about Great Lakes Restoration if we add every year 7.6 million pounds of new pollutants to Lake Erie. Many of these pollutants are Great Lakes priority pollutants. Ohio's task is to reduce these pollutants, not add to them.**

Response 56: Ohio EPA does not have the authority to determine where a facility may be located. Ohio EPA issued the draft permit, because the proposed emissions from the plant comply with all air pollution regulations and air pollution modeling criteria. Wetland issues are regulated by the Army Corps of Engineers and Ohio EPA's Division of Surface Water. Ohio EPA strives to protect our coastal wetlands. The foot print for this facility does impact some low quality and isolated wetlands. FDS received a water quality certification allowing impacts to these wetlands and streams in 2005 after a public comment period and public hearing.

Comment 57: The 2004 permit was issued with a 36-pound-per-year limit. The current permit will allow for even more mercury to be released by this facility and there is virtually no accountability for mercury and other toxic chemicals due to open venting. Due to these levels of PBT's (persistent bioaccumulative toxics) this permit is not acceptable.

Response 57: The ambient air quality modeling for this permit included analyses of uncontrolled emissions during the limited bypass venting allowed for in the permit, and even during these bypass venting periods the air quality modeling results comply with the levels set in Ohio EPA's air toxics rules. The permit limitations also comply with 40 CFR Part 63 subpart L (National Emissions Standards for Hazardous Air Pollutants for Coke Oven Batteries), and 40 CFR Part 63 subpart CCCCC (National Emissions Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching and Battery Stacks). No other current EPA air regulation addresses persistent bioaccumulative air toxics.

Also, see response to Comments 2 and 48.

Comment 58: What will stop FDS from intentionally burning coal to make and sell electricity, when an oven is not needed for coke? Isn't it then simply a coal-fired power plant? Prohibition of this should be included in the permit if issued.

Response 58: The applicant has applied for a permit to produce coke in the coke ovens. Use of the coke ovens for means other than producing coke would be a violation of the terms and conditions of the permit and the applicant would be required to apply for and obtain a permit modification.

Comment 59: Ohio EPA only looks at each pollutant as if they were the only pollutant the plant is exposing people to. Science is clear that multiple pollutants increase the risk of cancer, heart disease, asthma and premature death in the elderly and people with chronic lung conditions.

Response 59: U.S. EPA has not established, nor is Ohio EPA aware of any reliable tool to predict the effects of these combined emissions. Review of the combined effects of pollutants is beyond the scope of this air permit review.

Comment 60: **The state of Ohio should accept liability for damages caused by loss of use of Lake Erie if mercury or other pollutants make the lakes fish inedible or unmarketable due to mercury or other impacts contributed to by this plant.**

Response 60: Ohio EPA does not have any reason to believe that the amount of mercury expected to be emitted from this facility will significantly add to the burden of mercury in the Great Lakes. Also, see response to Comments 2 and 48.

Comment 61: **Ohio EPA has shown repeatedly that it issues permits in accordance with the needs of industry without consideration for the health, safety and property value of residents. This permit should not be issued for the same reasons. The "revolving door" between EPA and industry and their engineering firms assures that this permit was not issued with consideration for known health effects, nor consideration for property damage to Lake Erie and the species that live in it, nor for the loss of sports tourism from mercury contamination, etc.**

Response 61: Ohio EPA has a basic mandate of being protective of health. The emission limitations contained in this permit are intended to meet this goal. Also, see response to Comments 2 and 48.

Comment 62: **A health monitoring and health insurance program should be set up for residents within two miles of the proposed plant to monitor mercury levels in humans, in soil, and in the lake, fish, etc., and address the problems discovered with on-the-fly alterations to the permit, and payment for health problems and property buyouts should be up to the property owner, not up to FDS. The environmental justice concept fully applies to the people of Harbor View and Oregon, Ohio, with regard to this permit. It should as such be addressed in the permit, with full protections for residents affected. The presence of the plant will adversely affect property values. As such, the homeowners affected should receive compensation for the impact on their homes. FDS and its investors, partners, etc., and the cities of Toledo, Oregon, and the state of Ohio, should financially and fairly compensate the homeowners so affected.**

Response 62: Under Ohio rules and regulations, Ohio EPA does not have the authority to require the requested actions.

Comment 63: **The permitting of this coke plant violates the agreement we have with Canada per the IJC on new mercury sources on or about the Great Lakes. This alone should eliminate any consideration for the permit to be issued.**

Response 63: Ohio EPA does not agree that permitting the coke plant will undermine the Great Lakes Water Quality Agreement. The Great Lakes agreement does not state that there should be no new sources of toxic substances

permitted in the Great Lakes area. Instead, the agreement obligates the states to impose best controls on the toxic substances listed therein. The stringent emission limitations serve to control emissions of toxic air contaminants that are intended to meet the best control's test.

Comment 64: **One commenter stated that Ohio's air and water modeling software are obsolete and dangerous as they do not consider the transport of pollutants between air and water and back again, nor do they take include testing for possible changes in gene expression caused by environmental contamination. None of Ohio's modeling considers the switching of relevant cancer genes, nor anticipates the levels of gene expression caused by single or multiple pollutants.**

As such, the computer air model used by Ohio EPA is massively deficient, and incapable of ascertaining accurate risk data for humans, animals, and/or habitat or other property damage. On these grounds the permit should be denied until the modeling program reflects known peer-reviewed scientific and accepted medical data that directly and unquestionably would determine additional cancer and other human risk factors in the environmental justice area concerned with this permit.

Response 64: Modeling requirements for new source review are the basis for determining compliance with NAAQS and prevention of significant deterioration increments. Air quality models used in this process were developed to assure that the peak concentrations, which determine the acceptability of a project, are conservatively estimated. Case studies evaluating the acceptability of the current model can be found on U.S. EPA's Web site <http://www.epa.gov/ttn/scram/>. In addition to the conservative estimate of impacts from known emission points, a background is added in an NAAQS to account for small potential sources such as the one the commenter identified.

Comment 65: **There is a typographic error contained in Part III(A) Section I(1) of the permit for the cooling tower. The word "of" appears to be omitted.**

Response 65: The change will be corrected in the final permit.

Comment 66: **Part III(A) Section III(2) of the permit for the cooling tower specifies that "the permittee shall collect, test and record the TDS concentration, in ppm by weight, of the cooling water at least once per week." Carbon is requesting that this monitoring and record-keeping requirement be revised to allow for the use of a continuous TDS monitor in lieu of analytical testing. Weekly sampling and analysis of this parameter represents an unnecessary and overly burdensome requirement where continuous monitoring data is available.**

Response 66: The applicant did not previously notify Ohio EPA of its intent to install a continuous monitoring and recording system for dissolved solids, which

resulted in the terms contained in the draft permit. The final PTI will require installation of a continuous TDS concentration monitoring and recording system in lieu of the TDS monitoring term contained in the draft permit.

Comment 67: Part III(A) Sections III(1) and IV(2) require the monitoring and reporting of the operational status of the emission unit's drift eliminators. We believe that this is a superfluous record-keeping burden in light of the fact that mist eliminators are an integral part of the cooling tower. Since a drift eliminator system is essentially a series of baffles, their "operational status" is determined by their presence or absence, which is already specified as a requirement under Part III(A) Section (I)(1) Applicable Emissions Limitations/Control Measures." Further, any failure of the mist eliminators would constitute a malfunction and be reportable under Part I Section A(2) "Scheduled Maintenance/Malfunction Reporting." Carbon is requesting that these monitoring and record-keeping requirements be removed from the permit.

Response 67: Ohio EPA concurs with FDS. Therefore, final permit will be revised to delete terms III.1 and IV.2.

Comment 68: Use of drift eliminators having a drift rate of 0.0005 percent is, in fact, the lowest achievable emission rate (LAER) as opposed to the less stringent BACT indicated in Ohio EPA's New Source Review Form B. Carbon is requesting that this delegation be noted in Ohio EPA's internal documentation.

Response 68: Since this project is subject to PSD requirements, rather than non-attainment area review requirements, the correct designation of this emission limitation is that it is a BACT limitation, rather than an LAER limitation. An LAER evaluation was not conducted as part of the permit review for this permit.

Comment 69: The main stack and HRSG bypass vents mercury emission limitations is unlawful and should be eliminated from the FDS Coke Plant's final modified PTI. The mercury emission limitations specified for the main stack and HRSG by-pass vents associated with Emission Unit B901 are (1) not based on valid scientific or technical information; (2) inconsistent with Ohio EPA actions for other recently permitted non-recovery coke plants; and (3) exceed Ohio EPA's legal and regulatory authority. Based on these findings, Ohio EPA should eliminate the main stack and HRSG bypass vents mercury emission limitations in the final modified PTI for the FDS Coke Plant.

As discussed in LMG's submission on behalf of FDS to Ohio EPA dated December 17, 2004, the draft modified PTI mercury emission limit for the main stack was established by Ohio EPA based on a proposed U.S. EPA maximum achievable control technology (MACT) standard for mercury emissions from coal-fired boilers at power

plants. The proposed MACT standard, however, was subsequently modified by U.S. EPA in the final rule to increase the allowable mercury emissions from coal-fired boilers at power plants. Furthermore, coal-fired power plants are different than non-recovery coking plants where, among other things, coal is not combusted but rather coked. Hence, Ohio EPA's continued incorporation of mercury emission limits in the draft 2007 modified PTI that is based a proposed MACT regulation (which has been changed and is currently invalid) for coal-fired boilers at power plants is arbitrary and unreasonable on both a technical, scientific and legal basis. Ohio EPA's draft mercury emission limitations also conflict with and are inconsistent with the mercury emission control provisions contained in Part III.A.1.2.s of the draft modified PTI. These provisions specify that the FDS Coke Plant achieve an overall mercury control rate of 90 percent, based on the use of powered activated carbon (PAC) injection. As discussed above, Ohio EPA's calculations for the existing mercury emission limits are equivalent to approximately 95 percent (other than demonstrating inconsistency, I'm not sure how the 95 percent argument helps us when our limit is 90 percent, which is lower) control of the estimated potential mercury emissions from the FDS Coke Plant. This inconsistency further demonstrates the lack of any sound scientific basis for the existing draft mercury emission limitations. By imposing mercury emission limitations for the main stack and HRSG bypass vents in the draft modified PTI for the FDS Coke Plant, Ohio EPA has failed to meet a central criteria of its BAT regulations and Agency guidance - consistently applying regulatory standards to identical sources within Ohio.. In the draft PTI modification, Ohio EPA references OAC Rule 3745-31-05(A)(3) requirements for BAT as the basis of the draft modified PTI's proposed mercury emission limits. BAT is defined as, "...any combination of work practices, raw material specifications, throughput limitations, source design characteristics, an evaluation of the annualized cost per ton of air pollutant removed, and air pollution control devices that have been previously demonstrated to the director of environmental protection to operate satisfactorily in this state or other states with similar air quality on substantially similar air pollution sources."

Furthermore, Ohio EPA guidance provides that the Agency is required to apply regulatory standards "...consistently throughout the state" to ensure that "sources will not gain economic advantage by selecting one location over another" (DAPC Guide #42). Nevertheless, as recently as June 2006, Ohio EPA issued a PTI modification to the Haverhill North Coke Company (HNCC) for a proposed Phase II non-recovery coking operation to be built in southwest Ohio that contained no mercury limitations whatsoever. In the final PTI modification issued to HNCC in June 2006, Ohio EPA provided the following extensive rationale to support the agency's decision for requiring no mercury emission limit within the PTI:

“During the review of this permit, it became clear that there are significant uncertainties concerning the expected mercury emissions from nonrecovery coke manufacturing facilities. These uncertainties include, but are not limited to (1) the fact that limited mercury testing has been done on non-recovery coke facilities, (2) limited information is available concerning the effectiveness of the various control devices on this emissions unit for mercury control, (3) there are limitations to data concerning the amount of mercury in the coal that is expected to be used, and (4) the form of mercury (elemental, oxidized, and particle-bound) produced by this emissions unit is not fully understood. Because of these significant uncertainties, the Best Available Technology (BAT) mercury emission limits for the main stack have not been set. Instead, the limits will be set once initial testing for mercury is complete and at least six months worth of data are collected via the mercury sorbent trap monitoring system or an alternate approved continuous emissions monitoring system based on an EPA promulgated instrumental reference method for mercury.

“After the completion of the initial testing for mercury, and not later than nine months after the mercury sorbent trap monitoring system commences operation, the permittee shall submit to the Director and the Portsmouth Local Air Agency a report that proposes appropriate BAT mercury emission limits for the waste gas stack. This report shall include, at a minimum, the results of the coal mercury content data, the permittee's recommended mercury emission limits, and the calculation of and rationale behind the recommended emission limits. Not later than six months after the submission of the permittee's report, the Director shall issue a revised draft permit-to-install to define the appropriate BAT mercury emission limits, the Director shall consider the information contained in the permittee's report, but is not obligated to accept the permittee's recommended BAT mercury emission limits.”

Since June 2006, LMG is unaware of any new or additional information that resolves the scientific and technical uncertainties specifically referenced above or that supports the establishment of a mercury emission limit for non-recovery coking operations. In fact, an air permit for issued for a proposed non-recovery coking plant in the neighboring state of Illinois in October 2007 did not include mercury emission limits because of the lack of scientific or technical information on which to base the emission limits. Consequently, imposition of the mercury limit within the draft PTI modification for the FDS Coke Plant is clearly inconsistent with the definition of BAT.

Moreover, Ohio EPA has no other legal authority that authorizes the Director's imposition of those limitations. FDS has demonstrated that the estimated uncontrolled mercury emissions from the FDS Coke Plant coke batteries would result ambient air concentrations that are less than 1 percent of the applicable Ohio air toxics standard for the protection of public health. Therefore, the mercury

emission limitations contained in the draft PTI modification should be deleted as they are arbitrary, unreasonable, and wholly inconsistent with the recent Ohio EPA BAT determination made for the HNCC Phase II non-recovery coking operation.

Response 69: Ohio EPA understands FDS's concerns associated with the mercury limit. FDS Coke is concerned that the limit we set is based on very limited data and that there are many uncertainties associated with the expected emissions. We understand that it is not known with a high degree of certainty how efficient the air pollution controls will be when it comes to mercury removal. The main control device used to remove mercury in this case has never been used at this type of facility.

Because of these uncertainties, Ohio EPA has proposed to revise the language to allow an increase in the mercury limit if, and only if, it is shown that the control equipment is operating as designed and the amount of mercury emitted will be protective of public health.

Comment 70: **Emission Unit B901's requirement in Part III.A.1.2.s for achieving a 90 percent overall control of mercury through the use of AC injection specified in the draft PTI modification is unlawful and should be eliminated. As discussed above, the Ohio EPA BAT determination contained in the modified PTI issued in June 2006 for the proposed HNCC Phase II non-recovery battery (Emission Unit P902) Ohio EPA did not establish a BAT minimum AC injection mercury control specification because of "significant uncertainties" associated with these issues. In addition, a 90 percent control specification was not included in the final modified PTI issued to the FDS Coke Plant in September 2005. Since June 2006, LMG is not aware of any new information that has been generated to resolve the scientific and technical uncertainty specifically discussed by Ohio EPA and other states regarding the establishment of a mercury emission limit for non-recovery coking operations. Therefore, the draft modified PTI requirement that the FDS Coke Plant achieve a "90 percent overall control" of mercury using PAC injection is arbitrary, unreasonable, and unlawful. The establishment of a 90 percent mercury removal requirement for the PAC injection system would require Ohio EPA to have technical information that PAC injection resulting in a 90 percent control of mercury has "been previously demonstrated to the director of environmental protection to operate satisfactorily in this state or other states with similar air quality on substantially similar air pollution sources." No such demonstration can be made by Ohio EPA because AC injection for control of mercury emissions from non-recovery coke batteries has not been conducted in Ohio or any other state within the US. Furthermore, as noted in LMG's previous submission to Ohio EPA dated February 14, 2005, considerable scientific uncertainty is present regarding the technical and cost issues associated with the control the control of mercury from non-recovery coke batteries using PAC injection. Establishment of a BAT control efficiency for mercury requires the Ohio EPA to adequately consider the significant cost-per-ton of**

mercury control using PAC injection Specifically, Ohio EPA, in making a BAT determination, must take into account “environmental, energy and economic considerations.” As stated in Ohio EPA’s own guidance, the BAT analysis serves “to eliminate control technologies with excessive costs.”

Ohio EPA appears also to have followed BAT guidance for incorporation of environmental, energy and economic considerations when establishing mercury emission allowances and reductions for coal-fired power plants in Ohio under the U.S. EPA’s Clean Air Mercury Rule (CAMR). These mercury emission allowances could be considered equivalent to BAT determinations for coal-fired power plants in Ohio.

Ohio’s agreed upon mercury allowances and planned reductions for coal-fired power plants are available at <http://www.epa.gov/ttn/atw/utility/OAR-2002-0056-6703.xls>. Based on this information, the average reduction in mercury emissions under the CAMR program for coal-fired power plants in Ohio will be approximately 68 percent. This mercury control level contrasts dramatically with the arbitrary 90 percent minimum overall control specified in the draft FDS Coke Plant PTI modification. Moreover, the 90 percent mercury control for the FDS Coke Plant was established by Ohio EPA even though no scientific and technical cost information is available for PAC injection for mercury control at non-recovery coking plants. Therefore, the 90 percent mercury control requirement from the use of AC injection contained in the draft FDS Coke Plant PTI modification should be deleted as unscientific, unlawful, and unreasonable.

FDS agrees that Ohio EPA’s mercury emission BAT determination and permit language contained in the PTI modification issued to HNCC Phase II Emission Unit P902 is reasonable. This permit language specified that a BAT mercury emission limit would be established after completion of mercury emission testing and an optimization study of the PAC injection system.

Response 70: Ohio EPA determined that an emission limitation of 36 pounds per year mercury emissions from the main stack was best available technology for the FDS Coke Plant. Also see response to Comment 69.

Comment 71: Emission Unit B901’s requirement in Part III.A.I.2.s for design and operation of a AC injection system for a maximum PAC injection rate of 10 lbs per million actual cubic feet (MACF) of air should be eliminated as this requirement is arbitrary, unfair, and unlawful. Ohio EPA’s draft PTI modification language that the FDS Coke Plant meet a PAC injection rate design specification of 10 lbs per MACF of air is arbitrary as no technical information has been developed or provided by Ohio EPA to support this proposed maximum PAC injection rate. In contrast, FDS provided to Ohio EPA a detailed

review of existing information on the use of PAC injection at coal-fired power plants to control mercury in February 2005.

As part of this review, FDS determined that a maximum PAC injection rate of two lbs per MACF of air was a “reasonable” mercury control specification for the FDS Coke Plant based on an expert review of available technical and cost information. Ohio EPA agreed with this FDS finding and included the maximum PAC injection rate of two lbs per MACF of air in the final PTI modification issued on September 20, 2005.

FDS is not aware of any new technical information that supports an increased maximum PAC injection rate on 10 lbs per MACF of air for the FDS Coke Plant. Moreover, FDS is not aware of any Ohio EPA or other evaluation that demonstrates that this 10 lb specification is technically and/or economically justified for non-recovery coking plants. As discussed in the prior FDS submission to Ohio EPA, “the FDS Coke Plant will not be commercially viable if the PAC injection rates are not capped to a maximum of 2 lbs/MMacf.” Furthermore, FDS concluded that an upper PAC injection rate of two lbs per MACF of air was “scientifically justified for consideration in any potential future optimization study”. FDS submits to Ohio EPA again that establishment within the PTI modification of a reasonable upper maximum PAC injection rate of two lbs per MACF of air is necessary to reduce the cost uncertainty and huge commercial risk associated with any permit requirement for an “optimization study” of the PAC injection system.

Finally, Ohio EPA incorporated the two lbs per MACF of air as the maximum PAC injection rate specified in the HNCC Phase II PTI modification issued by Ohio EPA in June 2006. Therefore, Ohio EPA’s specification of a maximum PAC injection rate 10 lbs per MACF of air in the FDS Coke Plant PTI modification without any new technical information is commercially unfair and unreasonable. As a result, the current specification of a maximum PAC injection rate of 10 lbs per MACF of air for the FDS Coke Plant is unlawful based on the clear arbitrary nature of this requirement.

Permit language in Part III.A.1.2.s for Emission Unit B901 that discusses the PAC injection system optimization study must be modified to specify that incremental costs and economic factors will be considered in any determination of proposed mercury emission limits and PAC injection control specifications to be consistent with BAT.

Based on Ohio EPA’s discussion in the HNCC final PTI Modification issued in June 2006, the purpose of the optimization study for the PAC injection system is to provide a scientific and technical basis for the determination of PAC injection rate and resulting mercury control that will meet the definition of BAT in Ohio. As discussed in FDS Comment 2, the definition of BAT in Ohio requires the

incorporation of economic considerations such as control costs and serves “to eliminate control technologies with excessive costs.” Therefore, FDS requests that Ohio EPA specifically modify the language within Section III.A.I.2.s of the draft PTI modification to include the consideration of cost-effectiveness in any evaluation of (1) PAC injection rates greater than 2 lbs per MACF of air or (2) the use of chemically treated PAC to provide for potentially increased mercury removal.

As discussed in Comment #3, the maximum PAC injection rate of two lbs per MACF of air previously was incorporated in the 2005 PTI Modification for the FDS Coke Plant was developed by FDS after an extensive review of the scientific information, technical literature, and cost data on PAC injection at coal-fired boilers. No additional technical information is available to support the use of a maximum PAC injection rate of 10 lbs per MACF of air at nonrecovery coke plants. Therefore, any PAC injection optimization study to evaluate potential increases in mercury control with (1) PAC injection rates greater than 2 lbs per MACF of air or (2) chemically treated PAC would be unreasonable and unlawful if the incremental cost effectiveness of these components were not considered as part of the optimization study.

Response 71:

Ohio EPA has reviewed the comments and information FDS submitted relating to the 10 lbs per MADF PAC injection rate and the 90 percent control efficiency requirements. We have also reviewed information concerning the basis for these two restrictions. Based on this review, Ohio EPA believes that the 10 lbs per MACF PAC is not supportable and has returned the restriction to the previous permit’s two lbs per MACF.

Ohio EPA has chosen to maintain the 90 percent control efficiency requirement. However, because of the significant uncertainties associated with the expected control efficiency of the control devices, Ohio EPA had added language to the permit that allows FDS to request that the director adjusts the control efficiency requirement after the control system has been installed and optimized. This language follows the previous language used for the 36 lb/year mercury emission limit. The control efficiency can be adjusted if, and only if, it is shown that the control equipment is operating as designed and the amount of mercury emitted will be protective of public health.

Comment 72:

Permit language in Part III.A.I.2.u for Emission Unit B901 should be added that provides FDS with the ability to petition the Director for the removal of the mercury sorbent trap monitoring system requirement within the PTI modification. Part III.A.I.2.u for Emission Unit B901 specifies that as part of BAT, the “permittee shall comply with the mercury sorbent trap monitoring system requirements under CFR Part 60, Subpart Da and 40 CFR Part 75 that are determined by the Director to be applicable.” The overall purpose of the mercury sorbent trap is to confirm compliance with the mercury emission limitations and consistency with the mercury emission test

results. The mercury emission test results will include data that will allow for an evaluation of the mercury emissions per ton of mercury present in the charged coal. In addition, FDS will be required in the modified PTI to collect and analyze a monthly coal sample for mercury content.

Based on this information, FDS expects that the mercury sorbent trap monitoring system will be able to demonstrate that the FDS Coke Plant's mercury emissions are consistent relative to the mercury content of the coal charged. As a result, FDS will be incurring significant additional monitoring costs even though the emission limit monitoring accurately conducted using just the results of the composite coal sample results. Therefore, FDS should be authorized within the modified PTI to petition the Director to discontinue the mercury sorbent trap monitoring system after 1 year of operation. Furthermore, language should be included within the modified PTI that the Director shall remove the mercury sorbent trap monitoring system if the FDS Coke Plant mercury emissions are determined to be consistent and understood during normal operations.

Ohio EPA's provision for FDS to petition the Director for removal of the requirement for a mercury sorbent trap monitoring system would be consistent with an identical provision included in the HNCC PTI modification issued in June 2006. To prohibit incorporation of this provision in the FDS Coke Plant's modified PTI would be arbitrary and unfair to an identical emission source.

Response 73:

If it can be shown that the mercury control efficiency at an activated carbon injection rate of two pounds per MACF of exhaust gases is constant, and if coal sampling indicates that the mercury content of coal used is constant, then Ohio EPA will evaluate the need for both mercury coal quality sampling and mercury sorbent trap monitoring if requested by the company. At that time, Ohio EPA may determine that either coal sampling for mercury content may be discontinued, or mercury sorbent trap monitoring may be discontinued.

Comment 73:

Permit language in Part III.A.V.2.h for Emission Unit B901 should be added to the requirement for performance of the PAC injection optimization study that is consistent with Ohio BAT. Part III.A.V.2.h for Emission Unit B901 specifies the performance of the PAC injection study to determine the "optimum operating parameters" on the PAC injection system to "maximize the control of mercury emissions." This language is inconsistent with Ohio BAT regulations and guidance that require the incorporation of cost and economic considerations in the determination of the appropriate level of control for any air pollutant. Based on this finding, the language within this section should be modified. FDS proposes that Ohio EPA state that the permittee shall perform a PAC injection optimization study to determine optimum operating parameters to maximize the control of mercury emissions "consistent with Ohio

BAT including consideration of the incremental cost-effectiveness of increased PAC injection rates greater than 2 lbs per MACF of air or the use of chemically treated forms of PAC.”

Response 73: Ohio EPA concurs with FDS. Therefore, final permit terms will be revised accordingly.

Comment 74: The Toledo area has teetered on meeting maximum U.S. EPA levels for ozone and particulates. More stringent air quality and greenhouse gas reduction laws are expected to go into effect in 2010. This coke plant has more fine particulate emissions than BP or Bayshore, and BP has announced a major expansion of its facility with no emission estimates. The impacts of the coke plant could limit expansions of existing industries and new ones.

Response 74: Ohio EPA is required to issue a permit based on current policies and regulations, rather than those that may exist in the future. If an area is shown not to be complying with a future revised standard, all emission units, both new and old, will be evaluated to determine the best way to meet that standard during the state implementation plan process.

Comment 75: The 2004 permit allowed the coke facility to operate on over 200 acres. The 2005 permit reduced the permitted area to 51 acres that include a portion of Duck Creek. Since the 2005 permit was issued, an electrical generating plant has been added. The permitted 51-acre area seems too small to accommodate these facilities. The request is, if this permit is granted, to confirm the requirements to have the facility be limited to 51 acres.

Response 75: The size of a facility in acres is not part of the air permit review process. However the specific location of emissions units based on latitude and longitude coordinates was part of the air quality modeling review. The coke plant is required to install the emissions units in the locations that were used in the air quality modeling analyses. If the emissions units are not constructed in the same general locations as specified in the modeling data input, the applicant may be required to re-model the emissions. A PTI modification will need to be issued if re-modeled emissions indicate that a modification has occurred under OAC rule 3745-31-01(QQQ)(1)(b).

Comment 76: The 2004 permit was based on the FDS representation that Sunoco/Thompson technology would be used. Since then FDS has changed the designer to Uhde/Thyssen Krupp. Efforts to find an Uhde/Thyssen Krupp coke facility built in the last 20 years have found none. Given that this would be the first nonrecovery coke plant with this design, Ohio EPA is requested to require a "model" oven be built that will show that this unique technology should meet emission levels Ohio EPA is authorizing.

Response 76: Ohio EPA does not have the legal authority to require a company to first build a demonstration plant prior to construction of the proposed facility.

Comment 77: The steam plant was not in the 2004 or 2005 permit and little information is available about its design and "fuel" requirements. This is a request that Ohio EPA create a set of terms and conditions predicated on the steam electrical generating plant being built and another set of terms and conditions if the steam plant is not built.

Response 77: An application was submitted in 2007 for a cooling tower to be used at a co-generation facility that will utilize steam from the FDS Coke Plant. A permit was issued for emissions from the cooling tower associated with the co-generation facility. In order to develop a set of terms and conditions for a process that uses the steam produced at the FDS Coke Plant other than a co-generation facility, Ohio EPA would first need to know the specific type of process to be installed to use the steam instead of a co-generation facility. If the hypothetical process to be installed in lieu of a co-generation facility results in increased air pollution emissions, a PTI would need to be obtained from Ohio EPA prior to installation.

Comment 78: I request that all previous comments submitted for the 2004 and 2005 FDS permits be added to and included in these comments. Previous submitted comments for 2004 and 2005 include, but are not limited to, comments made by Alex Sagady and by and for the village of Harbor View.

Response 78: Because all comments have been addressed in previous responsiveness summaries, they will not be re-addressed in this responsiveness summary. The aforementioned responsiveness summaries can be viewed at the following links:

<http://www.epa.state.oh.us/dapc/transfer/FDSCokePlant061404.pdf>
<http://www.epa.state.oh.us/dapc/transfer/FinalResponsivenessSummary09202005.pdf>

Comment 79: There needs to be a set 400-pound lead limit, to exceed this limit allows a higher amount than reported at Bayshore. This is a request that the 2007 permit clearly state limits for emissions including but not limited to mercury and lead, and that if the lead and other pollutant levels are exceeded, then a permit modification with public comment and input is required.

Response 79: The draft permit and final permit contain a lead emission limitation. After issuance of the final PTI, any change to the lead emission limitation or other emission limitation would require a permit modification that would be subject to a 30-day public comment period.

Comment 80: The Toledo Environmental Services Division Web site (if you scroll down because it looks blank) shows that with current regulations Toledo is very close to exceeding the ozone "attainment" thresholds. The limits were exceeded in 2005, but averaging over two years got them just under. Going over the limits means auto emission testing so that the public may be required to pay because of the emission increases caused by this coke plant. The same Web site shows that fine particulate emissions were exceeded in 2005.

The FDS coke emissions for lead and fine particulates are higher than the 2002 emissions reported in the TRI report for BP and the Bay Shore First Energy power plant. Clearly the high levels of lead and fine particulate emissions should be of concern to the whole Toledo area.

Response 80: Ohio EPA is concerned about ensuring that the NAAQS for lead and particulate emissions are maintained. Ohio EPA would not be allowed to issue this permit if air quality modeling results for this project demonstrated a violation of these air standards.

Comment 81: This 2007 permit should require riparian setbacks from Duck Creek consistent with Coastal Zone Management requirements. Also, in issuing this permit is Ohio EPA advocating the coke plant to build structures on the banks of and/or over Duck and Otter creeks?

Response 81: Ohio EPA's Division of Air Pollution Control does not, and does not have the authority to restrict the proposed location of a business. Ohio EPA's Division of Air Pollution Control is required to issue an air permit if it is demonstrated that the proposed installation will comply with all applicable air pollution policies and regulations.

Comment 82: The draft permit admits that the proposed project exceeds the prevention of significant deterioration rates for CO, NOx, PM10, and SO2. Further, permit modeling showed that the sulfur dioxide emitted from the coking plant uses up 54 percent of the allowable Toledo area SO2 emissions and 71 percent of coarse particulate emissions. The draft permit requires annual emission testing for pollutants. With these levels, the testing should be quarterly.

Response 82: The draft permit requires an initial stack test for all of the above pollutants from the coke oven battery stack. The sulfur dioxide emissions will also be monitored continuously. Ohio EPA will incorporate additional stack testing requirements into the Title V permit for this facility, and the frequency of required testing will be based on the test results determined during the initial stack test and consistent with Ohio EPA policy as stated in Ohio EPA Engineering Guide #16.

Comment 83: It should be noted that this project could have been built any time after the June 14, 2004, permit was issued and after September 2005. FDS secret investors and operators were unable to get the financing to build the plant. Regulations require that construction had to start 18 months from when the permit was issued; a 12-month extension is common. It has now been 42 months since the original permit was issued and company representatives say they still seek "angel investors." Either OEPA should not issue the permit until the background and track record of the owners and operators is known, or require FDS Coking to provide financial assurances – a \$100 million bond or equivalent insurance to provide funding for 'events' that may occur.

Response 83: See response to Comment 11.

Comment 84: FDS has not disclosed the amount of water it will use. The consultant said that part of the water would be treated and the rest would come from a storm water retention pond. This sounds strange. Also, this facility claims there will be no storm water runoff and has not applied for an NPDES permit. It would seem an NPDES permit should be required. This is a request that Ohio EPA clarify in the permit the amount of water used and its source, and the need for an NPDES permit. It would seem that in order to determine the emission levels and the steam, the amount of water and source would have to be known.

Response 84: See response to Comment 40.

Comment 85: The numbers in the draft permit are confusing and seem to contradict themselves. The draft permit says that this plant is allowed to use 2.1 million tons of coal that will produce 1.44 million tons of coke. These were the numbers in the 2004 permit. The 2005 permit talks about the amount of coal used per hour and the production level per hour. If these numbers are used and multiplied by 365, then the coal used and coke produced exceed the 2.1 million tons of coal and 1.44 million tons of coke. The production levels and rates should correspond to the maximum amount of coal to be used and the amount of coke produced. Increasing the production levels also increases the emission levels which would require modifying the modeling done for this permit. Please clarify the coal use and coke production numbers.

Response 85: It is not uncommon for the maximum daily production/material usage at a facility to not be equal to the amount that would result by multiplying the daily maximum by 365 days per year. In this case, the applicant requested that the maximum yearly coal usage and coke production be restricted to less than that if the plant was operating at maximum capacity every day of the year. The applicant requested that the daily coal usage rate be increased from the 2004 permitted level of 5,640 tons per day to 5,897 tons per day of coal usage in the 2007 permit draft permit. The annual coal usage restriction of 2,058,600 tons per year requested by the company is the same in the 2004 permit and the 2007 draft permit. The annual coke production restriction of 1,440,000 tons per year requested by the company is the same in both the 2004 and 2007 permits.

Comment 86: The last request is that Ohio EPA write into this permit that if there are delays in constructing this coke plant and extensions are request, that Ohio EPA require all new laws, rules and regulations such as carbon credits, reductions be added to the permit requirements. This permit is already three and one-half years old. Ohio EPA should evaluate whether this permit modification based on the 2004 permit application still incorporates BACT and other requirements that would be most protective of public health and the environment.

Response 86: Ohio EPA does not have legal authority to incorporate this request into the permit. The permit requires that the owner or operator undertake a continuing program of installation or modification or be entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. If it is determined by Ohio EPA that these requirements have not been met, the permittee will be required to apply for and obtain a new PTI.

Comment 87: **PART III: EMISSION UNIT B901 COMMENTS/EDITS**
A(I)1: Increase hourly HAP emission limit to 26.32 pounds per hour and annual HAP emission limit to 113.55 tons per rolling 12-month period from the main stack to incorporate HCl into the HAP totals.

A(I)1: Increase hourly HAP emission limit to 5.4 pounds per hour and annual HAP emission limit to 3.0 tons per rolling 12-month period from the HRSG bypass vent stacks combined to incorporate HCl into the HAP totals.

Response 87: The requested changes will be made in the final permit.

Comment 88: **PART III: EMISSION UNIT B901 COMMENTS/EDITS**
A(I)1: Delete the following emission limits – based on no basis for limits under BAT.
***0.006 lb/hr and 36 pounds per rolling 12-month period of emissions from the main stack.**

***0.081 lb/hr and 15 pounds per 12-month period of emissions from all HRSG bypass vent stacks combined.**

Response 88: Ohio EPA has established these limitations as BAT and these limitations will remain in the final permit.

Comment 89: **PART III: EMISSION UNIT B901 COMMENTS/EDITS**
A(I) 2.k: include language averaging 20 percent opacity limit over five consecutive charges.

Response 89: The appropriate averaging period and compliance method for this limitation is already specified in the draft permit under Section V.1.cc.

Comment 90: **PART III: EMISSION UNIT B901 COMMENTS/EDITS**
A(I) 2.u: Include provision to petition Director for removal of this requirement.

Response 90: Ohio EPA has determined that an emissions monitoring system is required for all new coke plants. This term will remain unchanged in the final permit.

Comment 91: **PART III: EMISSION UNIT B901 COMMENTS/EDITS**

A(I) 2x: Delete provision as inconsistent with BACT/BAT determination pass venting for HRSG maintenance and duplicative of existing enforcement capability of Ohio EPA.

Response 91: Ohio EPA does not consider this provision to be inconsistent with BAT. The BAT evaluation was conducted based on the allowance of shutdown of each heat recovery steam generator for eight days per year and that these shutdown events would be staggered so that no more than one of the six bypass vent stacks would be in use at the same time. If the permittee fails to comply with bypass vent stack usage restrictions on which the BAT/BACT evaluation was based, Ohio EPA may be required to revise BAT/BACT for this emissions unit which may require additional heat recovery steam generators.

**Comment 92: PART III: EMISSION UNIT B901 COMMENTS/EDITS
A(II)12: Clarify that the common battery module duct temperatures before the HRSG will be maintained at a minimum of 1400°F.**

Response 92: The requested change will be made in the final permit.

**Comment 93: PART III: EMISSION UNIT B901 COMMENTS/EDITS
A(V) 1u: Increase hourly HAP emission limit to 26.32 pounds per hour from the main stack to incorporate HCl into the HAP totals**

A(V) 1v: Increase annual HAP emission limit to 113.55 tons per rolling 12-month period from the main stack to incorporate HCl into the HAP totals

A(V) 1rrr: Increase hourly HAP emission limit to 5.4 pounds per hour from the HRSG bypass vent stacks combined to incorporate HCl into the HAP totals

A(V) 1sss: Increase annual HAP emission limit to 3.0 tons per rolling 12-month period from the HRSG bypass vent stacks combined to incorporate HCl into the HAP totals

Response 93: The requested changes will be made in the final permit.

**Comment 94: PART III: EMISSION UNIT B901 COMMENTS/EDITS
A(V) 2a: Change earliest emissions testing date to 90 days after achieving the maximum production rate.**

Response 94: The requested change will be made in the final permit.

**Comment 95: PART III: EMISSION UNIT B901 COMMENTS/EDITS
B(III) 1: Strike section as N/A. Emission Unit B901 is regulated by MACT and, therefore, is not subject to Ohio air toxics regulation.**

Response 95: Ohio EPA agrees that since phosphorus is a hazardous air pollutant, and since this emissions unit is regulated by a MACT, that this emissions unit

is not subject to Ohio's Air Toxics Policy for phosphorus. This term will be removed from the final permit.

Comment 96: **EMISSION UNIT F001 COMMENTS/EDITS**
A(I) 1: Maximum visible particulate emissions allowed should be increased to 3 minutes during any 60 minute period to be consistent with HNCC Phase II PTI Modification issued in June 2006.

Response 96: Ohio EPA has determined that for the FDS Coke PTI, the BAT limitation contained in the draft permit is appropriate for the FDS Coke facility, and the limitation will remain in the final permit.

Comment 97: **EMISSION UNIT F002 COMMENTS/EDITS**
A(I) 1: Maximum visible particulate emissions allowed raised to 3 minutes during any 60 minute period to be consistent with HNCC Phase II PTI Modification issued in June 2006.

Response 97: Ohio EPA has determined that for the FDS Coke PTI, the BAT limitation contained in the draft permit is appropriate for the FDS Coke facility and the limitation will remain in the final permit.

Comment 98: **For CO, the HRSG bypass emissions are 49.6 lb/hr, while at Sun Coke, the emissions are only 4.36 lb/hr (according to RBLC).**

Response 98 It is inaccurate to compare the bypass vent stack allowable emission rate for FDS Coke to the bypass vent stack allowable emission rate at Haverhill North Coke. The allowable CO emissions from the HRSG bypass vent stacks contained in the Draft permit for FDS Coke are 8.3 pounds per hour, rather than 49.6 lb/hr. So the comparison in question is really 8.3 pounds per hour at FDS Coke vs. 4.36 lbs/hr at Haverhill's Phase I installation. The main difference between the emission limitation set for Phase I Haverhill and FDS Coke is the FDS Coke Plant allowable emissions are based on a much larger capacity (5,897 tons coal charged/day at FDS vs. 2,400 tons coal charged/day at Haverhill).

Comment 99: **For NOx, the main stack emissions for the 84 nonrecovery ovens is 246 lb/hr, while at Sun Coke, the emissions for 12 nonrecovery ovens is only 10.8 lb/hr.**

Response 99: It is inaccurate to compare the vent stack allowable NOx emission rate for FDS Coke to the vent stack PM10 emission rate at Haverhill North Coke. The allowable NOx emissions from main stack at Haverhill North Coke Phase I is 120 lbs/hr. So, the comparison in question is really 246 pounds per hour at FDS Coke versus 120 lbs/hr at Haverhill's Phase I installation. The main difference between the emission limitation set for Phase I Haverhill FDS Coke is the FDS Coke Plant allowable emissions are based on a much larger capacity (5,897 tons coal charged/day at FDS vs. 2,400 tons coal charged/day at Haverhill).

Comment 100: **For NOx, the HSRG bypass emissions are 39.2 lb/hr, while at Sun Coke, the emissions are only 24 lb/hr.**

Response 100: The main difference between the emission limitation set for Phase I Haverhill & FDS Coke is the FDS Coke Plant allowable emissions are based on a much larger capacity (5,897 tons coal charged/day at FDS vs. 2,400 tons coal charged/day at Haverhill).

Comment 101: For PM-10, the main stack emissions are 39 lb/hr for 2 batteries and 84 ovens, while at Sun Coke, the emissions are 1.17 lb/hr for 2 batteries and 100 ovens.

Response 101: It is inaccurate to compare the main stack allowable PM10 emission rate for FDS Coke to the fugitive charging PM10 emission rate at Haverhill North Coke. The allowable PM10 emissions from main stack at Haverhill North Coke Phase I is 17.14 lbs/hr. So the comparison in question is really 39 pounds per hour at FDS Coke versus 17.14 lbs/hr at Haverhill's Phase I installation. The main difference between the emission limitation set for Phase I Haverhill and FDS Coke is the FDS Coke Plant allowable emissions are based on a much larger capacity (5,897 tons coal charged/day at FDS vs. 2,400 tons coal charged/day at Haverhill).

Comment 102: Should multi-clone and scrubbers be considered as controls in the BACT analyses for quenching, in addition to baffles/clean water?

Response 102: BACT was not reevaluated this 2007 modification for quenching. No equipment changes were proposed in the 2007 permit from the 2004 permit. Only the daily processing rate was increased based on a 2004 maximum daily charge rate of 5,640 tons to 5,897 tons per day in the 2007 permit. The restricted annual coal usage and coke production rate contained in the 2004 permit remains the same in the 2007 draft permit. Ohio EPA is not aware of any coke manufacturing operations in the U.S. that utilize a multi-clone or scrubbers to control emissions from quenching operations and the recently issued draft coke plant permit for Gateway Energy in Granite City, Illinois, uses the same technology contained in the FDS Coke draft permit.

End of Response to Comments