

**Summary of Comments Submitted Into the Formal  
Hearing Record on the FDS Coke Plant Draft  
Air Pollution Permit-to-install  
and the Ohio EPA Staff Responses**

**June 2005**

Hearing Conducted: June 14, 2005

Hearing Record Closed: June 22, 2005

## **Preface**

The purpose of this document is to provide, for informational purposes only, a brief statement as to the response of the Ohio EPA, Division of Air Pollution Control staff to certain statements that were presented into the public hearing record identified on the title page. Any associated recommended changes to the proposed rules are also included. The staff's response to a particular comment or issue should not be considered as a completely definitive statement as to the disposition of any comment or issue nor be viewed as an absolute statement of the Agency through its Director.

Any person or company that submitted comments into the hearing record is being sent a copy of this report and final permit.

## Contents

<b>Preface</b> .....	i
<b>Contents</b> .....	ii
<b>Introduction</b> .....	1
<b>Comments and Response to Comments</b>	2-87

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

### **Introduction**

On June 14, 2005, the Ohio Environmental Protection Agency (“Ohio EPA”) conducted a public hearing concerning the proposed administrative modification of air pollution permit-to-install (PTI) number 04-01360 for the construction of a nonrecovery coke oven batteries at the FDS Coke plant facility to be located in Oregon, Lucas county, Ohio.

Modifications were made to the permit to reflect facility design improvements made by the company and to help settle several appeal issues. The original permit was issued in June 2004.

Major changes made in the draft permit issued in May remain in the final version. Only one significant change has been added. During the public comment period, a citizen asked how much mercury would be emitted during bypass venting at the facility. Ohio EPA calculated this total and established a mercury emission limit for bypassing of 15 pounds per year from all six vent stacks combined.

Added to the previously established 36 pounds per year limit for controlled mercury emissions, the plant will be limited to 51 pounds of mercury emissions per year. Unprecedented, state-of-the-art mercury controls will still be required.

Other significant changes announced in May included:

- Reducing the number of coke ovens to 168 configured into two batteries
- Allowing uncontrolled venting (bypassing) for up to eight days per year for each of the six vents
- Requiring activated carbon injection for mercury emission control
- Allowing the company to request, and Ohio EPA to grant increases in emission limits for mercury and lead, based on test results
- Using stamped coal to reduce dust emissions
- Using bag filters for coal-loading and coke-pushing emissions

Most air emission limits, including particulate matter, nitrogen oxide, carbon monoxide and volatile organic compounds, are lower than permitted in the 2004 permit. However, there would be emission limit increases in sulfur dioxide, lead, mercury and other hazardous air pollutants due to the limited bypassing.

Capacity of the plant would remain the same at 1.44 million tons of coke per year.

The purpose of the public hearing was to collect comments concerning the proposal. This document contains all public comments received and the Ohio EPA response to the comments.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #1

Lucas County went into nonattainment for ozone on June 15, 2004. This permit was issued May 10, 2005. It is a new permit and should have to meet the same standards for any facility seeking an air permit of this magnitude in Lucas County on or after June 15, 2004. This would be most protective of the public health.

*Response: The original permit to install (PTI) was issued on June 14, 2004 prior to Lucas County being designated as non-attainment for ozone. This permit is an administrative modification of the 2004 PTI. This permit is identified as an administrative modification, because construction has not yet started on the facility and the facility is not yet in operation. Since the facility has not been constructed, there has not been a change in the method of operation. Since the facility has not yet been operated, there has not been a change in the method of operation. Since this administrative permit modification does not result in a major increase of nitrogen oxides (NO<sub>x</sub>) or volatile organic compounds (VOC) emissions above the previously permitted levels, this modification does not trigger non-attainment area new source review. We do not want to risk the health of Oregon residents. 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 and Ohio's Air Toxics Policy. These standards are set to be protective of public health. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. We believe that if the FDS Coke plant complies with the final permit, public health will be protected.*

Comment #2

This is a new permit: With a different design(Sunoco was the design in 2004) now it is UHDE/ThyssenKrupp; Requests a net increase of 200,000 more emission pounds per year; Is located 500' west of the previous location; Uses a different coal source with more sulfur; Is 100 acres less in the plant footprint; Has a new mailing address – the previous address was a food storage warehouse in Detroit, Michigan and the new address is a law firm in Chicago, Illinois. This is a new permit that should have to meet the current nonattainment ozone reduction requirements for Lucas County and the LEAR standards for those regulated emissions.

*Response: The original PTI was issued on June 14, 2004 prior to Lucas County being designated as non-attainment for ozone. This permit is an administrative modification of the 2004 PTI. Since this administrative permit modification does not result in a major increase of NO<sub>x</sub> or VOC emissions above the previously permitted levels, this modification does not trigger non-attainment area new source review.*

Comment #3

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

The mercury limit should remain at 36 pounds. This is a very speculative coke plant. There is none like it in the US. OEPA and the company say that it will be the best, but criticize the nonrecovery Sunoco facilities that this same company used in 2004. The estimated 680 pounds of mercury per year stated in the 2004 application has changed but now there is no estimate for mercury before control technology and there is no estimate for the amount of mercury that will be emitted with venting. There is too little data for Ohio EPA to know what mercury emissions there will be. The 36 pound limit should stand.

*Response: We are also concerned about mercury emissions from this proposed facility or any other facility. It is important to control the amount of mercury released to the environment because mercury is a toxic heavy metal that can cause neurological damage in humans, especially children. We have spent considerable time and effort understanding the sources of mercury emissions and implementing steps to reduce the release of mercury into Ohio's environment.*

*Some of our most recent work has been geared towards understanding the expected emission of mercury from nonrecovery metallurgical coke manufacturing plants. What we found is that there has been very little work done to quantify mercury emissions from coke manufacturing plants. Almost no emissions testing has been done to date on these kind of plants. The only way we can currently calculate expected emissions from coke manufacturing plants is to do a mass balance and utilize empirical calculations and engineering judgement to do the calculations. Using conservative assumptions and these calculation methods, we can generate an expected worst case emission.*

*In June 2004, Ohio EPA issued an air pollution permit to FDS Coke Plant, L.L.C. (PTI number 04-01360). This permit allows FDS Coke to install and operate a new nonrecovery coke manufacturing facility. As a normal part of our permit review and development process, we developed emission limits for many pollutants, including mercury.*

*The issuance of this permit was groundbreaking in many ways. First, it was the first air pollution permit for a non recovery coke manufactured facility issued in the United States (and probably the world) that contained a specific limit for mercury air emissions. Second, it was the first air pollution permit for a coke manufacturing facility that essentially required the installation and use of controls to specifically control mercury.*

*After the permit was issued, FDS Coke appealed the permit indicating that it could not proceed with some of the limits and restrictions in the permit. Since that time, we have been working with the company to understand its concerns and to develop acceptable alternatives.*

*As a result of this work, on May 10, 2005, Ohio EPA issued a draft permit modification for this air permit that takes into account the alternatives and a proposed change in configuration of the coking operation.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*One of the items changed pertains to the terms and conditions associated with the mercury limit. FDS Coke was concerned that the limit we set is based on very limited data and that there are many uncertainties associated with the expected emissions. As indicated above, very little test data is available from this type of facility. 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.*

*Another item changed was to allow bypassing of the control equipment for a limited time in order to allow for safety inspections of some boilers. The only way to safely inspect these boilers is to take them off-line. During this time, emissions will not be routed to the control equipment and, instead, will be vented directly out to the atmosphere. This will result in more emissions, including emissions of mercury, than was expected under the original permit.*

*Our review indicates that even with the proposed changes, the mercury limit will be the most stringent mercury limit established for any nonrecovery coke facility in the United States. In addition, our toxic evaluations indicate that the amount of mercury emitted is not likely to cause any significant adverse health effects to citizens near the proposed facility.*

**Comment #4**

There should be no venting. Ohio EPA in 2004 issued a permit that disallowed venting. The company should shut down the unit during inspections and maintenance rather than bypassing pollution control equipment.

*Response: The 2004 permit did not allow for bypass venting, however, the applicant has provided additional information indicating that not allowing for limited bypass venting would be cost prohibitive. We have explored numerous options with the applicant in search of lower cost options to eliminate bypass venting, but these options were considered to not be cost effective. Since it was determined not to be cost-effective to eliminate bypass venting, we were able to get the applicant to minimize the maximum number of days that would be allowed for bypass venting while performing inspections and maintenance on the heat recovery steam generators. The applicant originally requested 14 days of bypass venting per vent stack, however, the applicant agreed to reduce the number of days of bypass venting to eight days per vent stack. Modeling results of potential emissions (including bypass venting emissions) from the facility indicate that the emissions from the proposed coke facility will be within National Ambient Air Quality Standards and Ohio's Air Toxics Policy. These standards are set to be protective of public health.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #5

Ohio EPA, ODNR and the Army Corps should oversee the cleanup at the site. The coke plant will be on the banks of Duck and Otter Creeks – creeks that flow within one mile to the western basin of Maumee Bay/Lake Erie. The Western basin of Lake Erie is the warmest shallowest most productive in the Great Lakes. The cleanup at the plant and its impacts on the waters should be overseen by the government.

*Response: While we are concerned with cleanup of contaminated areas, this is not a part of the review process for an air permit application.*

Comment #6

The owners and investors in this company should be publicly known. Ohio EPA's statement that this is not required is simply unacceptable. It is now widely rumored that the parent company is Russian. For security to our air and waters the public has the right to know.

*Response: We reviewed the information provided by the applicant and information found from other sources (including information provided to us from citizens) to determine if 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. The ownership of the proposed source is not something we can consider when we decide if a permit should be issued. For our review, what matters most is if the proposed source complies with all applicable air pollution requirements. If it does, then we know that the air pollution coming from the proposed source would not cause adverse health affects to citizens near the facility. Our 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.*

Comment #7

This coke plant went to bid and the bids came back at over \$500 million. Now it is rebid and the bids are around \$300 million. What was cut? Who are these people?

*Response: The overall construction cost of the new coke plant is not part of the air permit review process and is not required to be submitted as part of the air permit application by the applicant.*

Comment #8

How would Ohio EPA view this permit if these are foreign interests that pose security threats?

*Response: See response to Comment #6*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #9

Now after the Ohio EPA established the 36 lb limit on mercury emissions last year, set according to Ohio EPA Director Chris Jones, "because we are concerned about the impact of mercury on Lake Erie and on our children", this limit has been dropped, which sounds like the plant will be able to basically emit whatever it wishes without fear of repercussions or penalty. According to your 5/10/2005 Draft PTI Modification, the test results for both lead and mercury will become the new limit and may be increased by the director. In other words, there is no limit, it's build it, fire it up, see what comes out of the stacks and learn to live with it. And it pretty much goes without saying that once the plant is up and running, it will never be shut down for any environmental infractions or concerns.

*Response: See response to Comment #3*

Comment #10

Ohio is presently the second largest state in terms of mercury emissions, second only to Texas. And when one considers the difference between the two, well maybe we should really be considered number one. The fact that this plant is situated right on the shoreline of both Maumee River and Lake Erie's Maumee Bay makes the easing of the 36 lb mercury emission limit as well as several other contaminants (sulfur dioxide and lead) doubly objectionable.

*Response: See response to Comment #3*

Comment #11

There already are fish consumption advisories in effect for Maumee River, Maumee Bay and Lake Erie due to PCBs and established commercial and recreational industry, which relies on safe water and healthy fish stocks by allowing the 36 lb mercury limit to fall by the wayside for a handful of jobs is irresponsible to say the least.

*Response: See response to Comment #3.*

Comment #12

Once Ohio EPA did establish emission requirements they should be honor bound to stand by their commitment and honor to those criterion. It should be the responsibility of FDS Coking to meet the EPA's requirements, the EPA's obligation to meet FDS Coking demands.

*Response: See response to Comment #3*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #13

I am writing against proposals, as reported in the Blade, to turn some pollution standards into "goals" for the proposed coke plant, and to "trade off" many of the pollution controls that should be in place.

*Response: See response to Comments #3 and #4.*

Comment #14

I do not buy into the idea that in order to create jobs and promote "national security" it is necessary to weaken pollution laws and expose us to higher levels of mercury, sulfur dioxide, lead, and "various forms of chemicals classified as hazardous". U.S. Coking and its unidentified investors should be held to investing a few million more up front to install appropriate pollution controls, and should not be allowed "up to 48 days a year to bypass pollution control equipment". Without strong and enforced pollution controls, this kind of investment sets Toledo back, positioning us as the industrial backwater of post-industrial economy.

*Response: See response to Comment #4.*

Comment #15

Ohio EPA made restrictive mercury levels in the initial contract with this new plant, Why the sudden change? We all know that being restrictive when a company starts is best-once a company opens, it is all too easy to "grandfather" them into less restrictive levels. Why not aim high?

*Response: See response to Comment #3.*

Comment #16

The identities of the owners and investors of this company must be publicly disclosed now. Such information provides clues to how well or poorly such a facility will be run. If the ownership is a foreign, or distant, that is highly relevant to a knowledgeable decision. Knowing the identities of the investors could be highly material to understanding what has changed, technically, with the plant design. If the investors are doing poorly in the larger economy, they might be reducing their investment in quality features in this one.

*Response: See response to Comment #6.*

Comment #17

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

I understand that the current construction figure of about \$300,000 is some \$200,000 less than last year's design. The public must know what processes or functions have been abandoned for this lower figure, and why.

*Response: See response to Comment #7.*

### **Comment #18**

The further destruction of the already-degraded air quality in the Toledo area will be harmful to public health, lake quality, and Toledo's image, not to mention that it restricts other options for development.

*Response: 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 and Ohio's Air Toxics Policy. These standards are set to be protective of public health. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. We believe that if the FDS Coke plant complies with the final permit, public health will be protected.*

### **Comment #19**

To allow any more mercury into the air above Lake Erie (already under a health advisory and fish alert recommending no more than one fish per meal per week and none for expectant mom's) is an excessive emission. With mercury levels already at 5 ppm, an increase could doom the Lake Erie fishing and boating industry. Even thirty six pounds of mercury is an inexcusable amount when grams are deadly to people.

*Response: The coke plant will be required to meet all regulations that are in effect at time of issuance of the permit. We can only apply emission limitations as allowed under applicable air pollution regulations. Ohio EPA can not ban new sources of mercury emissions, but can require that new sources install air pollution control equipment meeting Best Available Technology. The FDS Coke Plant will be required to install control equipment meeting the requirements of Best Available Technology which takes into consideration a combination of technical and economic feasibility of different types of air pollution controls. Modeling results of potential emissions from the facility indicate that the emissions from the proposed coke facility will be in compliance with Ohio's Air Toxics Policy.*

### **Comment #20**

Now this proposed coke plant plans to emit 100 pounds of lead per year. This heavy metal accumulates in the food chain. It now appears in drinking water and is expensive to remove from

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

public drinking water. Where is the environmental wisdom and logic in allowing more lead in the air over Lake Erie?

*Response: See response to Comment #19.*

Comment #21

Nitrogen oxides and sulfur dioxide are the two primary contributors to acid rain. Lucas County already leads the nation as the heaviest emitter of these two gases. And we have over 1,000 tons of these gasses per year? Is this the only way to produce steel in the progressive year 2005? How is steel produced in Sweden and Germany who have a zero emissions requirement for all industries?

*Response: Coke is a necessary raw material used in the production of iron and steel. Modeling results of potential emissions (including bypass venting emissions) from the facility indicate that the emissions from the proposed coke facility will be within National Ambient Air Quality Standards and Ohio's Air Toxics Policy. These standards are set to be protective of public health. We are not familiar with Sweden and Germany's steel production facilities.*

Comment #22

We request the following be included in the air permit under consideration.

1. A depositional model of the impacts on both Duck and Otter Creeks from the coke plant. If this model shows projected adverse impacts from air emissions on either or both creeks, then the permit should contain a requirement to clean the waters and sediments before the creek or creeks discharge into Maumee Bay (i.e. Western Basin of Lake Erie).
2. Testing of the waters and sediments before the coke plant is built and quarterly after the coke plant is built to establish a "baseline" to measure future impacts against.
3. Allow the Duck and Otter Creek partnership to comment on any cleanup of the coke plant site prior to building, for impacts to the creeks.

*Response: Under Ohio's rules and laws, none of these requests can be considered in Ohio EPA's air permit review process.*

Comment #23

I find it troubling that Ohio EPA has worked with the company on this permit now up for review since last fall, but Ohio EPA elects to give the public the bare minimum to comment. A recent permit in Illinois gave 90 days for comment. This is a very complex permit with huge emissions that impact the air we breathe and the water we drink. Ohio EPA may meet the letter of the law but they

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

certainly do not meet the spirit of the law giving the public time for a thorough review. There is nothing that prevents Ohio EPA from giving more time for the public to comment other than once more rushing the permit through in favor of the polluting company. After months and months of time and effort to help the company get a permit.

*Response: We feel that we have provided adequate time for citizen comments to the modified permit. We provided at least 30 days notice prior to the public hearing and the comment period was open as soon as the draft PTI modification was public noticed. Further, Ohio EPA extended the comment period until June 22, 2005. The purpose of extension of comment period was to provide additional time to the public to send us written comments.*

### **Comment #24**

The proposed coke plant under the 2004 permit would make pollution worse in Northwest Ohio and also for our neighbors in Michigan and Canada. The updated permit will add significantly increased levels of SO<sub>2</sub> while decreasing to a small degree the NO<sub>x</sub> pollutants and PM<sub>10</sub>. This will add to even higher incidents of asthma in Northwest Ohio.

*Response: 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 and Ohio's Air Toxics Policy. These standards are set to be protective of public health. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. We believe that if the FDS Coke plant complies with the final permit, public health will be protected.*

### **Comment #25**

The current draft permit will allow venting. This will further increase hazardous pollutants and particulates. In last year's, Best Available Technology meant that there would be no venting. Now, Best Available Technology means that venting is allowed. Clearly this is an economic accommodation to FDS Coke Plant at the health and expense of the citizens of Northwest Ohio. In the long run the social costs and health costs for these increased pollutants for out weight and short term economic advantages.

*Response: See response to Comment #4.*

### **Comment #26**

Please make known in the new permit the mercury and lead venting amounts.

*Response: The mercury emission during venting are estimated at 15 pounds per year. The lead emissions during venting are estimated at 200 pounds per year.*

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

### Comment #27

We consider it very important for the Coke Plant to have NPDES permits and wetlands permits as well.

*Response: If required, the FDS Coke Plant will need to obtain NPDES and wetlands permits. However, these types of permits are not a part of the air permit review process.*

### Comment #28

Harbor View is bound directly on the South by the Oregon BP Refinery, Marsulex Chemical Company, on the east by the First Energy Bayshore Power Plant and on the west by the taconite facility. There are already too many pollutants in our area. Ohio EPA seems to say that the added pollution to our village is acceptable. How can that be with all of these sources immediately adjacent to the village? And did you consider the worst case scenario when BP has a failure or has to flare and if Bayshore Power Plant has an incident where the black smoke billows, and if there us a windy day and taconite is blowing? Did you look at the impact of our health if all of these would happen concurrently, or independently? Common sense says that this added major source is harmful to the village people's health. Ohio EPA is clearly representing business not the people and the environment in allowing this permit.

*Response: Modeling results of potential emissions from the FDS Coke Plant indicate that the emissions from the proposed coke facility will be within National Ambient Air Quality Standards and Ohio's Air Toxics Policy. These standards are set to be protective of public health. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. We believe that if the FDS Coke plant complies with the final permit, public health will be protected. The modeled emissions include potential emissions from units at all Title V sources in the area. CSX transportation is not a Title V facility, so emissions from CSX were not included in the modeling analysis. The impact of potential emissions from all facilities in the model were considered with emissions from the facilities occurring concurrently, however, the modeled emissions do not include an analysis of emissions during process upset conditions.*

### Comment #29

If you insist on allowing this coke plant, then the village requests that the following be included as a permit condition:

1. Continuous air monitoring on the western end of the village for all pollutants emitted by the coke plant and all of the aforementioned sources and Nabisco.
2. A notification system in place to warn people of unhealthy air conditions.
3. Evacuation procedures.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: Ohio EPA follows a complex procedure following 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 current locations of the existing monitors. The siting of additional monitors is possible, but many factors must be considered prior to actually siting a monitor including: (1) the type of pollutant desired to be monitored (each monitor only measures one pollutant), (2) the possible locations of the monitor (siting criteria must be met), (3) who is going to operate and maintain the monitor, and (4) who is going to pay for the work of operating and maintaining the monitor and for any sample analysis that needs to be done.*

*Ohio EPA has one of the most extensive air monitoring networks of any state in the country.*

*Ohio EPA uses data loggers to acquire data from numerous ozone and PM-2.5 (fine particulate) monitors throughout the state. These hourly data are sent to the U.S. EPA's AIRNow web page (<http://airnow.gov/>) which makes the data available to the public and media outlets at its web site. There is also a mechanism for having e-mails sent to interested citizens.*

*Also, Section 112(r) of the Clean Air Act (CAA) requires U.S. EPA to promulgate regulations for the prevention and mitigation of accidental releases of extremely hazardous substances. Under this section, U.S. EPA established a list of regulated substances and thresholds and issued the Chemical Accident Prevention regulations. The goals of this program are to prevent accidental releases of chemicals that could cause serious harm to human health or the environment and to reduce the severity of releases that occur. Covered facilities are required to develop and implement a risk management program that includes a five-year accident history, an offsite consequence analysis, an accident prevention program, and an emergency response program. Companies must also submit to Ohio EPA a risk management plan describing the source's risk management program as a part of the Title V permit requirement.*

### **Comment #30**

The proposed revisions turn what was a mandatory mercury limit into one that is almost entirely discretionary with the Director of Ohio EPA. Given continuing improvements in the control technology and no evidence to suggest that the company would not be able to meet the required mercury reduction, Ohio EPA has unnecessarily weakened an otherwise reasonable requirement. The language in the revised permit concerning compliance with the mercury limit of 36 lbs per year should more closely reflect the permit's initial language that gave Ohio EPA the ability to lower the emissions limit as appropriate, following testing.

*Response: See response to Comment #3.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #31

If the activated carbon injection control system has been optimized according to the revised permit's specifications and test results indicate difficulty in meeting the limit, we recommend that the permit require the company to consider additional technological options that would more likely allow it to meet the required mercury limit. Such options may include but are not limited to: increasing the sorbent injection rate, utilizing an alternative sorbent type, or additional cooling of the flue gas.

*Response: These options may be able to further reduce mercury emissions, however, due to the uncertainties in mercury control as discussed in the response to Comment #3, we have decided to be specific in the controls required. Due to the uncertainties in mercury control as described under the response to Comment #3, we agreed to limit the scope of the required mercury controls, rather than to require the company to try an unlimited number of options to further reduce mercury emissions.*

Comment #32

If alternative technical configurations have been exhausted and the company does not succeed in achieving the desired mercury reduction, then we suggest that the permit allow for a temporary increase in the mercury emissions limit, while other technical options are being explored within the period of the permit.

*Response: See response to Comment #31.*

Comment #33

The revised permit allows for an increase in lead emissions by 400 lbs annually and guidelines for meeting the lead emissions requirement have been changed to allow Ohio EPA to increase the limit. We recommend that a more restrictive limit for lead emissions be required, and adjustments to this limit should be structured similar to the ones we have proposed for controlling mercury.

*Response: The revised permit allows for a lead emission increase of 200 pounds per year due to limited bypass venting that will occur during scheduled maintenance of heat recovery steam generators at the coke plant. Similar to the response to Comment #3, the lead emissions were based on little available data for nonrecovery coke ovens. The applicant is installing Best Available Control Technology (BACT) for the control of lead emissions, and Ohio EPA does not have legal authority for requiring the installation of air pollution control equipment beyond what is considered BACT. Lead emission limitations for the proposed facility have been set at a level that complies with Ohio EPA's Air Toxics policy.*

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

### Comment #34

We are also concerned about the changes in the permit that allow the company 48 days a year to bypass pollution control equipment for safety inspections and maintenance on its coke ovens. Allowing emissions to directly vent into the air for this time period represents a significant change and weakening of the permit from last year, when Ohio EPA had adequately addressed the concerns of the community members and stakeholders in bordering states with regards to the venting issue. What is most troublesome about this revision in the permit is that no estimated annual mercury emissions data resulting from this change have been provided to the public despite requests from at least two concerned citizens.

*Response: See response to Comment #4 for venting concerns. The estimated annual mercury emissions during bypass venting is 15 pounds per year.*

### Comment #35

According to Ohio EPA, the company claims that controlling emissions during maintenance and safety inspections is prohibitively costly and would prevent the company from building the plant. On what basis did the company come to this conclusion and shouldn't such an analysis be available to the public or a third party business analyst for verification?

*Response: The basis for the company's determination is contained in numerous submittals by the company with regards to the cost in dollars per ton of pollutant controlled. The FDS Coke air permit files are available for public review by appointment at the City of Toledo, Division of Environmental Services located at 348 South Erie Street, Toledo, Ohio 43602. Call the Toledo Division of Environmental Services at 419-936-3015 to schedule an appointment.*

### Comment #36

The company and Ohio EPA have also claimed that controlling emissions during maintenance and inspection is unprecedented at coking plants. However, it is our understanding that most coking plants in operation today are recovery plants and at the time of their construction, requirements were simply not put in place to require controlled venting during maintenance and safety inspections or such requirements may not apply to such a different design type.

*Response: It is correct that the majority of existing coke plants are older recovery coke plants, however our comments referred to newer nonrecovery coke plants. Recovery coke plants do not utilize heat recovery steam generators, whereas nonrecovery coke plants do utilize heat recovery steam generators. Heat recovery steam generators installed on nonrecovery coke plants require annual inspection and maintenance. We are not aware of existing nonrecovery coke plants that do not have bypass venting.*

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

### Comment #37

While the company is technically exempt from meeting nonattainment standards (because the draft permit was issued just prior to the revised nonattainment deadline in 2004), more analysis should have been conducted by Ohio EPA on the full impacts of the proposed coke plant, with regards to meeting nonattainment standards for ozone and other criteria air pollutants in Lucas County and in nearby counties of Ohio and Southeastern Michigan. In addition to helping further understand health consequences, such an analysis would help the public evaluate the potential economic effects as well. Not only will industry competitors who might consider building plants in the area be at a disadvantage cost-wise, because they will have to meet tougher air standards, but also, new businesses in unrelated industries that would otherwise consider constructing facilities in the area may be discouraged by the area's nonattainment status, made worse by FDS Coke's exemption from nonattainment rules. The net effect could mean less overall job creation for Lucas and other counties affected by the proposed coke plant's air emissions.

*Response: See response to Comment #1*

### Comment #38

While it is important to maintain strong industrial and manufacturing sectors in the region, it is equally important to ensure environmental protection, and that new industrial development move in the direction of the cleanest production processes possible. Indeed, developing, manufacturing and installing new clean technologies has the potential to anchor new, sound, long term economic development in Ohio. This promise can only be met if projects are thoroughly reviewed, the public and experts engaged, and their comments fully considered. Accordingly, we urge extension of the comment period for this project until July 20, 2005. The citizens of Ohio, Michigan and elsewhere in the Great Lakes region, along with the lakes and rivers we depend on, deserve no less.

*Response: We feel that we have provided adequate time for citizen comments to the modified permit. We provided at least 30 days notice prior to the public hearing and the comment period was open as soon as the draft PTI modification was public noticed. Also, see response to Comment #23.*

### Comment #39

We again wish to address specifically the issues of air pollution, air deposition and subsequent water pollution raised by the expected emissions from this plant. However, we also call to your attention the unsuitability of the site to an industrial development of this type. The proposed new plant would be built on the banks of Duck and Otter Creeks with discharge into Maumee Bay/Western Lake Erie less than ½ mile from the coke plant location (the CSX transportation of the coke and coal will take place directly on the shores of Maumee Bay). The Nature Conservancy and state conservation

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

agencies identify the Maumee River, Erie Marsh and Maumee Lake Plain as areas of biodiversity significance to be protected in their 2003 Conservation Blueprint for the Great Lakes. The Maumee River Remedial Action Plan and the Lake Erie Lakewide Management Plan both call for protection and restoration of coastal wetlands. According to the Ohio Lake Erie Commission, 78 percent of Ohio's coast can no longer deliver the values of a functional ecosystem, and 90 percent of Ohio's coastal marshes have been filled, making conservation of existing coastal wetlands a high priority for protecting water quality, wildlife habitat and the Lake Erie fishery.

*Response: In order to construct at this site, FDS Coke must meet all applicable federal, state and city rules and regulations concerning wetlands and may need permits to meet those requirements. This permit only covers the air pollution requirements. We can not reject an air permit application based solely on the location of a plant.*

### Comment #40

This letter mainly addresses the fact that the proposed FDS facility would be a major new source to Lucas County, Ohio, Southeast Michigan, Maumee Bay, and the Lake Erie ecosystem of nitrogen oxides, sulfur dioxide, particulate matter, and hazardous air pollutants including benzene, cadmium, lead and mercury. As such, it should require the most environmentally sound pollution control technology and monitoring, and an impact assessment for the eventual plant shutdown and resulting site contamination including the range of persistent toxic substances associated with coke batteries. Ongoing volatility in the Great Lakes steel industry has meant that many communities in the Great Lakes region, and especially around Lake Erie, are now dealing with the particularly toxic legacy of their abandoned coke plants.

*Response: The applicant will be installing air pollution control technology meeting the requirements of Best Available Control Technology. The coke plant also is required to comply with the following federal regulations that have been developed in order to reduce the impact of hazardous air pollutants associated with coke batteries: National Emission Standards for Coke Oven Batteries and National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks. These federal regulations are designed to limit emissions of hazardous air pollutants to levels protective of public health.*

### Comment #41

As you know, the Great Lakes are the subject of two ecosystem restoration bills introduced in Congress last summer calling for \$4 to \$6 billion to be spent on habitat protection and cleaning up contaminated sediments in Areas of Concern like the Maumee and Ottawa Rivers and eleven other toxic hotspots in the Erie basin alone. Ohio's Senators George Voinovich and Mike DeWine are champions of the Senate bill and, as avid fisherman, are strong advocates for a restored Lake Erie fishery, including fish that are safe to eat. The Great Lakes Council of Governors, Conference of

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Great Lakes Mayors, and state and regional conservation groups all support and are working together for a strong, well-funded Great Lakes restoration effort.

This effort is undermined when we permit new sources of persistent toxic substances that specifically have been targeted for “virtual elimination” by the U.S.-Canada Great Lakes Water Quality Agreement, substances that have been reduced at great cost through sediment clean-up programs and source reduction programs under, for example, the Binational Toxics Strategy.

*Response: We do not agree that the permitting of the FDS Coke plant will undermine the Great Lakes Water Quality Agreement. The Great Lakes agreements do not state that there should be no new sources of toxic substances permitted in the Great Lakes area. Instead, the agreements obligate the states to impose best controls on the toxic substances listed in the agreement. We imposed stringent emission limitations that serve to control emissions of toxic air contaminants that we believe meet the best control’s test.*

### Comment #42

The 2000 Lake Erie Lakewide Management Plan specifically designates mercury as a critical contaminant in Lake Erie, and includes a map showing high concentrations of mercury in the sediments of the western basin, including the Maumee River Area of Concern. In the International Joint Commission’s 2001-2003 Priorities Report, the Science Advisory Board recommends that the governments “further reduce mercury emissions, including those from coal combustion, because mercury levels in fish are still above levels to fully protect human health and wildlife and because there are over 2,000 fish consumption advisories for mercury in the United States and Ontario.” The SAB further notes that “coal combustion appears to be the largest, unregulated source of mercury air deposition to the Great Lakes area,” and that “due to widespread mercury contamination of sportfish, all Great Lakes states and the province of Ontario have general fish consumption advisories covering all inland waters.”

*Response: For this reason, we have included a mercury emission limitation in the permit and have required the applicant to install specific controls for mercury emissions. This will be one of the first coke plants in the world utilizing specific air pollution controls for the reduction of mercury emissions.*

### Comment #43

This permit was quickly public noticed and there has been minimal time for public review and comment.

*Response: We issued a quick public notice after issuance of all draft air permits in order to give the public notice as soon as possible that a draft permit has been issued. We feel that we have*

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*provided adequate time for citizen comments to the modified permit. We provided at least 30 days notice prior to the public hearing and the comment period was open as soon as the draft PTI modification was public noticed. Also, see response to Comment #23.*

### **Comment #44**

Now we simply do not know what the projected amount of mercury from the proposed venting and new source of coal is and more troubling is there simply is no limit.

*Response: The estimated emissions of mercury associated with bypass venting is 15 pounds per year. The final air permit contains a mercury emission limitation for bypass venting.*

### **Comment #45**

The public health and the Western Lake Erie waters are at risk from this plant.

*Response: We do not want to risk the health of Oregon residents. 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 and Ohio's Air Toxics Policy. These standards are set to be protective of public health. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. We believe that if the FDS Coke plant complies with the final permit, public health will be protected.*

### **Comment #46**

Chris Jones, Ohio E.P.A. Director for the 2004 permit for this coke plant took a strong precedent setting position on mercury, venting and other requirements. This is a new permit should have those same requirements. There are less ovens, less batteries, a new design, smaller acreage, altered location and many other design changes. This permit must meet the nonattainment regulations that Lucas County is under for ozone emissions that was made official June 15, 2004.

*Response: See response to Comment #1.*

### **Comment #47**

We submit that, along with NO<sub>x</sub>, mercury and the other hazardous air pollutants listed in the permit application are contaminants of concern for Lake Erie and no net increase in their discharge should be allowed.

*Response: Ohio EPA does not review deposition of air emissions into Lake Erie or waters of state as a part of air permit review process. However, information supplied by the applicant indicates*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*that the FDS Coke plant will be a net user of water. That means they do not plan on having any discharge of wastewater into the waters of the state. Since no wastewater will be discharged into state waters, no mercury, NOx and the other hazardous air pollutants from wastewater will be discharged into Lake Erie.*

*Further, modeling results of potential emissions (including bypass venting emissions) from the facility indicate that the emissions from the proposed coke facility will be within National Ambient Air Quality Standards and Ohio's Air Toxics Policy. These standards are set to be protective of public health.*

Comment #48

If it is not technically or financially feasible for the FDS facility to achieve lowest achievable emission rates for these pollutants of concern, a permit should not be granted.

*Response: We can not require the applicant to meet emission limitations more stringent than allowed under state and federal rules and regulations. The applicant will be required to install air pollution controls meeting the requirements of Best Available Technology.*

Comment #49

Finally, we continue to urge you to fully engage the public and relevant experts in reviewing this project in order not to undermine Ohio's overall economic development goals. Research, manufacture and installation of innovative clean technologies have the potential to provide new jobs and sustainable economic development in Ohio. Through the Ohio Coal Development Office and other public and private initiatives, the state is a leader in developing such technologies. This is increasingly important in a state where recreational fishing alone, much of which is Lake Erie based, is a \$750 million industry. The continuing expedited permit processes for the FDS coking compromises the public process and expert input necessary for sound and balanced decision-making. We urge you to take the time necessary to ensure full public participation in a decision that will have so much impact on the public good, not only in Ohio, but in all communities around Lake Erie.

*Response: We sought comment from interested parties by public noticing the draft air permit. We feel that we have provided adequate time for citizen comments to the modified permit. We provided at least 30 days notice prior to the public hearing and the comment period was open as soon as the draft PTI modification was public noticed. All public comments are taken into consideration prior to issuing a final permit.*

Comment #50

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

The permit was issued for Oregon Ohio and the facility is in Toledo Ohio. Therefore, the applicant should be required to file a new permit application and not be allowed to change the faulty permit that was approved. The applicant's site location is not in the same city as was indicated on the original permit application.

*Response: The applicant knew that the project was going to be near or on the border of Toledo and Oregon. Since the applicant was not aware of the specific boundary between Toledo and Oregon, the application for the original permit and the application for the modified air permit both state that the facility is to be built in "Toledo/Oregon".*

### **Comment #51**

The EPA action to grant this permit just prior to the date for official non-attainment of air quality standards status for the county is a clear indication of political pressure and lack of the independence from state political leadership which is necessary to properly execute the permit process, according to Ohio's laws and rules. Ohio EPA cannot and has not met its responsibility under law and rule , to make this applicant meet the same standards as other applicants. When will all of the secretive lobbying efforts and the results of those secret lobbying efforts be revealed to the public?

*Response: See response to Comment #1.*

### **Comment #52**

When will the public learn how much money it will cost us in order to facilitate the coke plant?

Despite intense and successful lobbying of Ohio's political leaders, the coke plant owners have remained hidden and unknown to the public. Because of this, there is no potential liability that can be easily pinned on them. It is environmentally dangerous to have persons of unknown identity, character and intent, from foreign lands, operating this facility on the shore of Lake Erie, or anywhere in the state. How can they be held accountable? How will they seek to separate their profit from potential liability due to adverse effects and events related to pollution? When will we see their political connections?

*Response: The question about how much money it will cost to facilitate the coke plant is not a relevant comment to this air permit. Ohio rules and regulations require that air permit applications be signed by a responsible official. We often do not know who holds the stock in a company. We often file against the company if there is a violation and serve notice on the statutory agent. Ohio EPA's air permit review process does not involve an analysis of how a company separates profit from potential liability.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #53

This facility would add to the cancer and lung disease load of the neighborhood and the region. This has not been studied and it should have triggered a N.E.P.A.

*Response: National Environmental Policy Act (NEPA) requirements apply only to federal permits. In our case, the provisions of NEPA do not apply since Ohio is a fully approved program, not a delegated program. However, 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 and Ohio's Air Toxics Policy. These standards are set to be protective of public health. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. We believe that if the FDS Coke plant complies with the final permit, public health will be protected.*

Comment #54

A truly independent body should determine the risk before the permit changes are considered. An environmental impact study should be completed prior to issuance of these permit changes, as the facility will pollute to such an extent that it will affect human life negatively.

*Response: The applicant will be required to comply with recent revisions to risk-based rules developed specifically for coke ovens. A thorough risk analyses on hazardous air pollutant emissions from coke ovens has already been conducted on coke ovens by U.S. EPA. Ohio EPA does not have authority to require an environmental impact study to be performed prior to issuing an air PTI.*

Comment #55

Ohio EPA's modeling does not consider un-treated venting from the coke furnaces, and the data for uncontrolled venting days, has not been made public, nor impacts of same. Nor does the modeling consider the additional impact of increased rail and truck emissions the plant will bring to the area.

*Response: The modeling input for this project does include the emissions from uncontrolled venting necessary due to scheduled maintenance of the heat recovery steam generators. The modeling input for this project also includes fugitive dust emissions from truck traffic at the proposed coke plant. Emissions from unloading coal from railcars have also been included in the modeling input. However, emissions from locomotive diesel engines and truck exhaust emissions were not included in the modeling input, since these are mobile sources and are not regulated under the air permit program. Motor vehicle and locomotive exhaust emissions are not regulated under the air permit program. Emissions from these sources are regulated under U.S. EPA's mobile source program.*

Comment #56

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Where is Ohio EPA's data that will show no harmful effects to the immediate neighborhood and the larger regions?

*Response: See response to Comments # 1, 3 & 4.*

Comment #57

Has a study been done relative to uncontrolled venting and the health of children and the sick and the elderly, and those with asthma? These studies need to be done before permit changes to a rushed through and faulty permit should be considered.

*Response: 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 and Ohio's Air Toxics Policy. These standards are set to be protective of public health. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. We believe that if the FDS Coke plant complies with the final permit, public health will be protected. Also, see response to Comment # 4.*

Comment #58

No environmental or health impact has been prepared to assess the degree to which increased rail and truck traffic will add to the disease load of the neighborhoods affected by said traffic.

*Response: See response to Comment #55.*

Comment #59

There is a tremendous impact from transportation related to this project that is not being made public, and is not being considered by OEPA, and local and state officials.

*Response: Motor vehicle and locomotive exhaust emissions are not regulated under the air permit program and are not considered as part of this stationary source air permit. Emissions from these sources are regulated under U.S. EPA's mobile source program.*

Comment #60

The coincidence and promise of funding (in a near bankrupt Ohio) for rail overpasses in the area is a direct result of the governor and/or state government knowing full well that they were going to grant permits to build this facility, and that the increased rail traffic would be unbearable for the cities and towns hosting this increased rail and truck traffic. The purpose of the overpasses is to allow for unrestricted shipment of coal from the south and the shipment of coke. This is wrong

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

circumstantial evidence that the state of Ohio knew long ago of plans for this facility, but kept it secret.

*Response: Under Ohio rules and regulations, this comment cannot be considered in the review of this air permit.*

### Comment #61

Not doing a thorough environmental impact study is a grievous omission when permitting pollution on such a grand scale, in such an impacted neighborhood, on such an impacted and crucial asset as Lake Erie and Duck and Otter Creeks. This alone is grounds for withdrawal of the permit and denial of changes to the permit.

*Response: Ohio air rules and regulations do not require an environmental impact study as part of the permit application review process for air permits.*

### Comment #62

The proposed permit and changes will dump several million pounds of harmful lung irritants, known to cause disease, over area residents, Lake Erie, and its several islands that earn a living from the tourist trade. Tourism on these islands will be impacted by the daily pollution increase and especially on the days when pollution is vented around the pollution control devices.

*Response: 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 and Ohio's Air Toxics Policy. These standards are set to be protective of public health. In addition, we have established restrictive emissions limits for the pollutants this facility will emit. We believe that if the FDS Coke plant complies with the final permit, public health will be protected. We are not aware of evidence to indicate that tourism will be impacted on the Lake Erie Islands as a result of air pollution from the proposed coke plant installation.*

### Comment #63

Certain changes are highlighted by the Ohio EPA fact sheet issued to citizens, indicate that many parameters relative to the permit have changed so dramatically that Ohio EPA should demand a new permit application from the applicant, and the old permit be withdrawn. This is clear evidence that the original permit was written without the facts required to reasonably and fairly grant the original permit based on Ohio's laws and rules.

Neither Ohio EPA nor FDS Coke knew the facts when the permit was granted, these changes are a result of both entities finally realizing the physical design of the factory. Since they didn't know

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

what the factory specifications would be, the original permit should be revoked. The original permit was pure fiction, put on paper to beat the deadline date for non-attainment of air quality status for the county.

*Response: See response to Comment #2*

### Comment #64

Here are some of the known issues that have changed per the sketchy material provided thus far:

- The number of ovens and the number of batteries have changed.
- The number of tons per charge has changed, as has the total amount of coal and the number of charges.
- The cooking time has changed.
- Now, uncontrolled venting is being allowed, it was not allowed on the first permit.
- Continuous mercury monitoring has been replaced with sorbent tube sampling system.
- This permit has apparently been altered to allow the burning of higher sulfur coals; this should mandate a new permit application.
- Permissible leak time has changed from 10 minutes to 15 minutes.
- Continuous opacity requirements has been altered from the original permit.
- Daily coal sampling on original permit has been changed to monthly.
- The charging and coal cycle has been increased to 24 hours a day from 16 hours a day. This will increase pollution emissions and minimize opportunities for preventive maintenance during down time.
- The physical form of the coal has changed.
- The charging multiclone has been changed to a charging baghouse.
- The permitted opacity has changed.
- The pushing operation has changed.
- All the emissions unit parameters and methods have changed or been left open for the applicant/director.
- The location of the coke and coal storage piles has been changed to a different city.
- Coal unloading, storage, crushing, screening, stamping, blending, transfer and conveying have been changed.
- Coke handling and processing has been specified but without specifying where the venting will be sent to, and how it will be rectified.
- Both quench towers have been altered in capacity.
- SO<sub>2</sub> levels have been elevated when we already have a problem with too much in the air.
- Lead, a brain and nervous system toxin, has been increased.
- Mercury and all pollutants related to burning coal have been increased due to allowing uncontrolled venting. Mercury is now directly related to the autism epidemic impacting the nations children.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

- Hazardous air pollutants have been increased.

The profound depth and breadth of changes on the coke plant's altered permit proposal, strongly indicate to any reasonable person, that initial permit was rushed through to beat the new non-attainment of air quality classification that would have made this plant impossible to build in this county. The original permit was a fabrication, created solely to beat the deadline for stricter air standards. Ohio EPA acted to circumvent its own duty to properly discover the nature of the proposed coke facility during the original permit process. Ohio EPA instead sought to beat a deadline that would have offered Ohioans cleaner air to breathe.

*Response: We disagree that the Agency circumvented its own duty to properly discover the nature of the proposed coke facility during the original permit process. We acted on the basis of the original application and issued a final permit based on the original design. The company changed their design plans, and as required under OEPA regulations has applied for a permit modification to reflect the revised design of the coke ovens. Also, see response to Comment #1.*

### Comment #65

No information has been supplied as to where mercury will be stored from the mercury recovery unit(s). Will it be stored on the shores of Lake Erie at the hazardous waste site? Will it be processed there? Transferred from that facility?

*Response: The mercury that is adsorbed onto the activated carbon is captured by the main stack baghouse along with other particulate dust emissions. FDS Coke has indicated that the baghouse dust captured will be collected in enclosed hoppers. The hoppers will be emptied into enclosed roll-off boxes in an enclosure. The material that is collected in the roll-off boxes will be tested and transported offsite to an approved disposal facility.*

### Comment #66

How much mercury and other emissions will escape during uncontrolled venting? No data has been supplied regarding emissions from uncontrolled venting.

*Response: See response to Comment #42.*

### Comment #67

Sliding mercury and lead emissions are contrary to the permit, and so harmful to human health that the permit changes should be denied outright and the original permit withdrawn by Ohio EPA.

*Response: See response to Comments #3 and #33.*

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

### Comment #68

When will the sorbent tube sampling system sample, during uncontrolled venting, or just when pollution equipment is online? Who will sample and provide the data on the sampling to the public, a 3rd party contractor or the Ohio EPA?

*Response: The applicant will be required to operate the sorbent tube sampling system to monitor the main stack at all times the emissions unit is operating. The sorbent tube sampling system will not be used for monitoring mercury emissions from the bypass vent stacks.*

### Comment #69

To beat the deadline, the coke plant and Ohio EPA fabricated data and factory plans which were not yet real or known to be true. Quite the opposite, they knew the data wasn't true. The need for politically mandated speed, evidently was greater than Ohio EPA's need and ability to carry out its legal mission. The original permit was created and granted with fabricated data, that has never been relevant to coke plant as being built or reflected in the permit changes. The depth and all encompassing nature of these changes should mandate a completely new permit application, and stands as clear circumstantial evidence that the EPA rushed through the original permit for the purpose of beating new stricter federal air regulations, due to non attainment of air quality standards. Ohio EPA should immediately notify the applicant that a new permit application is required due to the fact that every aspect of the permit has changed, and that Ohio EPA hurried the permit, without accurate data, due to political pressure, in order to beat new cleaner air standards that would have made the coke plant impossible to build in this area.

Ohio EPA did not fulfill its legal obligations under law when it granted the original permit. Now it further ignores its legal obligations in allowing the original permit to be so profoundly altered. Permitting or allowing changes to a permit that was granted on false data, and the permit changes, are a violation of the public trust and harm human health.

*Response: Other less time sensitive projects were put on hold and multiple people were assigned to work on this permit. The project consumed the same number of work hours, but was done so in a compressed schedule by having multiple people work simultaneously on the permit review. If the permit was not issued prior to Lucas County being redesignated non-attainment, the applicant would need to comply with non-attainment new source review provisions which includes: coming up with offsets for NOx emissions from other companies and demonstrate that NOx emissions meet Lowest Achievable Emission Rate standards. Ohio EPA is concerned with the safety of the public. Ohio EPA would not issue the permit if it was determined that the emissions from the proposed operation did not meet standards that are designed to be protective of the public. Dispersion modeling of the allowable emissions was performed, and the results indicate that emissions are*

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*within what is allowed by National Ambient Air Quality Standards and Ohio EPA's Air Toxics Policy.*

*Further, Ohio air rules and regulations require the companies to submit to us accurate information to the best of their knowledge. In the event that a company sends us false information, there are serious implications to violating air rules and regulations.*

### **Comment #70**

The current fish advisories on Lake Erie and its tributaries, considered alone, should be ample criteria to withdraw this permit and alterations to it.

*Response: We can not deny a permit based on fish advisories. We can only deny a permit if we feel that the proposed installation will not comply with applicable state and federal air pollution regulations. In this case, we do not have reason to believe that the proposed installation will not be able to comply with state and federal air pollution regulations.*

### **Comment #71**

This pollution permit violates our treaty with Canada, (I.J.C.) and sets a precedent of non-compliance which Canada may now freely follow. It also violates the Great Lakes Governor's agreement.

*Response: The level of air pollution control has been set at a level that we believe is protective of public health and meets the commitments under the treaty with Canada (Great Lakes Air Quality and Water Quality Agreements). We believe that, for the most part, it is still meeting the 1988 Great Lakes States Air Permitting Agreement (Great Lakes Agreement). However, since the agreement was written prior to the 1990 Clean Air Act Amendments, and prior to U. S. EPA revising the Prevention of Significant Deterioration (PSD) rules to remove mercury as a PSD pollutant, it is somewhat stale and probably needs to be revised by the Great Lakes states organization.*

*For the FDS Coke permit, we believe we met the agreement in the following ways:*

- 30. Ohio EPA met the permit information portion of the Great Lakes Agreement by requiring FDS Coke to identify and quantify the potential mercury emissions. In addition, we did our own research on emissions data from coke oven batteries. An environmental impact statement was not required because Ohio does not require them as part of new source review (NSR) permitting.*
- 31. Ohio EPA did not require FDS coke to meet BACT for mercury. However, we did require them to meet Ohio's Best Available Technology (BAT) requirements for mercury. We think the BAT limits we are establishing are likely to be very similar, if not the same, as would be*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*required under BACT. We established a BAT limit instead of a BACT limit because currently we do not have the legal authority to require BACT for mercury.*

*Our legal authority disappeared when U.S. EPA revised the PSD rules to remove mercury from the list of PSD pollutants, Ohio EPA revised our rules to follow the revised PSD rules and U.S. EPA fully approved our state implementation plan (SIP). This occurred in 2001. U.S. EPA revised the PSD rules because Congress decided to regulate mercury emissions through the MACT program instead of the PSD program. U.S. EPA continued this regulation process when they published the NSR Reform rules. Under the NSR Reform rules, mercury is not listed as a “regulated NSR pollutant.” Therefore, under the PSD portion of those rules, mercury is not regulated. Since mercury is not regulated under PSD, BACT is not required. (Other Great Lakes states may want to check their authority to impose BACT for mercury. It is our understanding that some states have delegated programs for PSD. If that is true, then they would currently be using the federal PSD rules. Since the federal PSD rules no longer require BACT for mercury, their authority to impose BACT for mercury may also have disappeared.)*

*Under the Great Lakes Agreement, Ohio is obligated to pursue regulatory authority to require BACT for mercury. Ohio will do so depending upon the results of any re-evaluation of the Great Lakes Agreement with the Great Lakes states.*

- 32. Ohio EPA has established emissions limits, operating stipulations and technology requirements for mercury as per the Great Lakes Agreement.*
- 33. Ohio EPA did require initial and periodic verification tests for mercury.*
- 34. Ohio EPA does plan on entering the permit data into U.S. EPA’s BACT/Lowest Achievable Emission Rate (LAER) Clearinghouse.*
- 35. Ohio EPA sent a copy of the public notice and a copy of the draft permit to the other Great Lakes States’ air permitting programs. In addition to sending the information to Great Lakes States’ air permitting programs, we also sent the information to U.S. EPA and to U.S. EPA’s Canada web page.*
- 36. Ohio EPA continues to be an active member of the various Great Lakes agreements and processes.*

Comment #72

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Ohio under its responsibilities as prescribed by law, should deny any permit (changes) that allow for the further release of any amount of mercury, especially since the prevailing winds blow the plume onto Lake Erie.

*Response: See response to Comment #3 and #19.*

Comment #73

The proposed site for the plant affects wetlands on the site, and degrades the air and water quality of the entire lake, which is a lucrative fishing and tourist area, this pollution permit and changes to it, endanger human life and health of helpless children in the immediate neighborhood and those who consume Lake Erie fish.

*Response: See response to Comment #s 3, 4, 18, 19, 39, 40, 47 and 57.*

Comment #74

This permit and these permit changes represent the last step in a process that represents a gross expenditure of public money and damages the public's property, (health, clean air and clean water), for the benefit of a very few and to the overall detriment of every Ohio citizen. The activity by Ohio politicians, culminating in this permit, makes the recent BWC scandals seem like petty theft by comparison.

*Response: Under Ohio rules and regulations, this comment cannot be considered in the review of this air permit.*

Comment #75

It is apparent that Ohio EPA and the owners of the coke plant estimated the emissions data and speculated about the nature of the design of the proposed coke plant, in order to issue the original permit before the new, more restrictive air standards were to take effect. This alone should negate the permit and make changes to it impossible. This activity by Ohio EPA and the states politicians should serve as a warning to all Ohioans that neither the state leadership, nor the Ohio EPA has the leadership, ability, nor will, to honestly enforce the letter and intent of Ohio and U.S. environmental laws. Ohio EPA should give back its air authority to the federal government, as the state is currently incapable of keeping environmental regulation, out of the hands of politics.

*Response: See response to Comments # 1, 3 and 4.*

Comment #76

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Ohio EPA has not provided the emissions data for the days of uncontrolled venting under the rewritten permit, and U.S. Coking has not made the data available either. Because this data is crucial in determining the impacts of the permit changes, I request that the period for public comment be extended till such time as the emissions data for uncontrolled venting is made available, and that the extension provides sufficient time for concerned parties to receive, evaluate and comment on that specific data.

*Response: The draft air permit did provide allowable emissions rates from the bypass vent stacks for the following pollutants: lead, hazardous air pollutants, carbon monoxide, nitrogen oxides, particulate emissions, PM<sub>10</sub>, sulfur dioxide, and volatile organic compounds. However, the draft air permit did not contain the allowable emission rate from the bypass vent stacks for mercury emissions. The final permit contains a mercury emission limitation of 15 pounds per year from the bypass vent stacks. We feel that we have provided adequate time for citizen comments to the modified permit. We provided at least 30 days notice prior to the public hearing and the comment period was open as soon as the draft PTI modification was public noticed.*

Comment #77

No changes to the original permit should be allowed because the original permit was neither proper nor legally filled out. The original permit was created with fabricated data which bears no resemblance to the factory as now described by the proposed changes to that original fraudulent permit.

*Response: It is not uncommon for companies to change the design of projects after issuance of a final permit. That is why Ohio EPA allows for companies to apply for a modification of their original permit application. Just because an applicant changes the design of a project does not automatically mean that an applicant's original design was "fabricated". The commentor has failed to provide any information supporting the claim that the applicant never intended to construct under the original plant design.*

Comment #78

Would Ohio dare spends hundreds of millions on overpasses to fit the land and our cities to meet the needs of a single polluting foreign entity?

*Response: Under Ohio rules and regulations, this comment cannot be considered in the review of this air permit.*

Comment #79

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

How much money have the coke plant owners and their lobbyists paid the states politicians to be allowed to use their states treasury like its own giant piggy bank, and to ram through a dishonestly constructed permit? How much money has been transferred to state politicians in overseas accounts? These are all important, relevant, and unanswered questions that are directly related to the original permits legality, and relate to the unraveling dishonesty inherent in the profound changes now being requested vis the changes to the original fraudulent permit.

*Response: Under Ohio rules and regulations, this comment cannot be considered in the review of this air permit.*

Comment #80

At the present time, Ohio EPA does not have jurisdiction to take an action to either propose, finalize and/or issue a revised permit to install with “administrative modifications” for the U.S. Coking Group/FDS coke oven facility. Jurisdiction over such permit matters has been vested in the Environmental Review Appeals Commission as a result of three appeals including actions in Case Nos. ERAC 255633 and ERAC 995632. Commenters are parties to the proceeding in ERAC 255633 and are movants for entry into Case No. ERAC 995632 on appeal in Case No. 04-APH-090971 before the Franklin County Court of Appeals captioned FDS Coke Plant, LLC v. Christopher Jones, Director of Environmental Protection.

*Response: We disagree that the Director does not have the authority to take action on proposing, finalizing, and/or issuing a revised permit to install with "administrative modifications" for the U.S. Coking Group/FDS Coke Plant. If issued, the final Administrative Modification to FDS Coke Plant PTI 04-01360 is still be appealable to the Environmental Review Appeals Commission.*

Comment #81

A. Issuance of the proposed Ohio EPA revised air permit to install for FDS Coke LLC would violate the federally approved Ohio State Implementation Plan Requirements for ozone nonattainment New Source Review by allowing a new facility to be constructed without complying with these rules

B. Facts relevant to commenters’ argument that the applicant has not commenced construction, there is no existing coke oven major stationary source, no authorization has been granted to construct the coke oven as presently proposed and configured and the proposed coke oven does not constitute an existing facility that can be modified

C. Commenters’ fact statement regarding the formerly authorized FDS Coke, LLC/US Coking Group facility [hereafter as the “Year 2004 Former Facility Proposal (Y04FFP)”] and the

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Applicant's proposed reconfigured coke oven (hereafter as the "Current Year 2005 Proposal") and its regulatory status

In 2004, FDS Coke, LLC/US Coking Group (hereafter as the "Applicant") submitted an air permit to install application to construct a coke oven in Oregon, OH. On June 14, 2004, Ohio EPA issued the Applicant an air permit to install (PTI) for the Year 2004 Former Facility Proposal as offered by the Applicant with certain additional lawfully constituted requirements imposed by Ohio EPA that arose from public comment.

The Applicant did not commence construction of the Year 2004 Former Facility Proposal. Instead, the Applicant chose to appeal the Ohio EPA issuance of the permit to the Environmental Review Appeals Commission.

The Applicant had previously sought to obtain a final air PTI prior to June 15, 2004 which was the effective date of a designation under final federal regulations by US EPA of Lucas and Wood Counties in Ohio as non-attainment areas for the ozone air quality standard.<sup>1</sup> Any air permit issued for a major stationary source in Lucas and Wood Counties of Ohio on or after June 15, 2004 would have be clearly and undisputably subject to different and more stringent emission control rules and other additional requirements for emissions of nitrogen oxides and volatile organic compounds, the precursors of ambient ozone formation.

*Response: See response to Comment #s 1 & 2.*

### Comment #82

Applicant's year 2004 former facility proposal for a coke oven facility is a completely separate, distinct and different facility from the Current Year 2005 proposal for a coke oven facility applicant's year 2004 former facility proposal for a coke oven facility is a physically separate and distinct facility from the current year 2005 proposal. The following table features physical element attributes that distinguish the year 2004 former facility proposal from the current year 2005 proposal.

Physical attributes distinguishing the year 2004 former facility proposal (Y04FFP) from the current year 2005 proposal (CY05P):

CY05P is proposed to be constructed at a different location than Y04FFP, with different stack emission and building location physical coordinates.

Ambient air pollution impacts from the CY05P facility would be at different magnitudes and locations than from the Y04FFP facility, particularly since the CY05P facility would have a different spatial arrangement to property boundary lines.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

CY05P would have 2 batteries of ovens in a straight line configuration different than the 4 battery configuration of Y04FFP.

CY05P facility ovens would be larger sized at 67 tons/charge as opposed to the 47 tons/charge for the Y04FFP facility; the larger ovens of CY05P would have higher potential uncontrolled fugitive emission rates than the ovens of the Y04FFP facility.

The CY05P facility would have permitted uncontrolled venting emissions from 6 vents; uncontrolled venting from the Y04FFP facility not permitted.

The CY05P facility would have 168 larger ovens and the Y04FFP facility would have 248 smaller ovens.

The CY05P facility is spinning off coal storage and terminal operations to a separate CSX railroad coal terminal facility with several open coal piles; the Y04FFP facility would have operated its own coal terminal.

Coking time intervals for the two facilities are a different length.

The CY05P facility would have 24 hour/day charging and pushing; the Y04FFP facility would have had 16 hour/day charging and pushing.

The CY05P facility charging and pushing equipment have different configurations, including different controlled and uncontrolled emission rates than those envisioned for the Y04FFP facility.

The CY05P facility coal and coke handling facilities have different configurations, including different controlled and uncontrolled emission rates than those envisioned for the Y04FFP facility.

The CY05P facility coke quenching emissions will have higher daily process and emission rates than those envisioned for the Y04FFP facility.

The CY05P facility fails to include the continuous emission monitoring devices for opacity and mercury emissions that were required for the Y04FFP facility; other compliance monitoring provisions for the CY05P facility are less stringent than for the Y04FFP facility.

The CY05P facility has different annual, daily and hourly potential to emit and permissible emission totals than the Y04FFP facility.

Unquestionably, the CY05P facility is physically different and distinct from the Y04FFP with both process equipment and stack/fugitive emission points located at different location coordinates.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: See response to Comment #2.*

Comment #83

The applicant never commenced construction of the Year 2004 Former Facility Proposal and the applicant has not finalized site arrangements, institutional matters and contracting for the Current Year 2005 Proposal; as such, neither the Year 2004 Former Facility Proposal nor the Current Year 2005 Proposal can be considered as existing major stationary source and commencement of facility construction has not been achieved.

Attachment 1 is a series of file materials in support of factual assertions in this section showing that arrangements, institutional matters and construction contracting had not been finalized for either the Year 2004 Former Facility Proposal, nor for the Current Year 2005 Proposal.

In an April 19, 2005 email memorandum from Lance Traves, Labyrinth Management Group (US Coking Group environmental consultant and principal negotiator with Ohio EPA on behalf of the company) to Mike Hopkins, Matthew Stanfield and Jack McManus, the Applicant makes the following admission:

“This huge project and opportunity for Northwest Ohio has been delayed for a host of reasons. We understand the Ohio EPA’s and TDES extraordinary efforts on the first round to get a final PTI issued. Still, that final PTI was not commercially viable and we believe recent events only reinforce this conclusion.”

“The revised final draft PTI we are currently working out the details on is commercially viable and we appreciate Ohio EPA’s consideration of all the information US Coking Group has provided during the past 9 months to make this happen. Ohio EPA and TDES clearly have lots on your plates. We also know that this PTI revision process has been dragged out far too long for most business projects and must come to a conclusion very soon if potential summer groundbreaking is on [sic] this great project to occur.”

Thus, the Applicant through its consultant admits that they did not proceed with the constructing the Year 2004 Former Facility Proposal deeming it “...not commercially viable” and having “...been delayed for a host of reasons.” The Applicant through its consultant also admits that there has been no groundbreaking for the project and that any such groundbreaking awaits issuance of a final permit to install in year 2005 in order for the project to begin.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

May 16, 2005 e-mails between a representative of CSX Transportation, the Applicant's coal terminal and coal storage partner for the Current Year 2005 Proposal facility and Matt Sapara, an official with the Toledo Port Authority (who would be the Applicant's facility site lease "landlord") indicate: "Matt, Have you heard anything regarding the latest bids? [in regard to the coke oven] Weren't they due in mid-May? Just wondering if they came back close to the budget price (under \$300MM) or were they \$500MM again? Steve Davis, Regional Development, CSX Transportation."

....and the reply...

"Yes, bids are due on Monday of next week. The word on the street is that each responding party is going to be close if not beat the budget numbers. I'll let you know more when I do. Matt."

The parties to these e-mails are crucially interested participants and business partners in Applicant's project so the factual indications in these communications cannot be dismissed as uninformed. The only conclusion that can be drawn from the information in the e-mails indicates that there has not been and is not now (at least as of May 16, 2005) a contract to construct the Year 2004 Former Facility Proposal or the Current Year 2005 Facility for that matter. The indication appears to be that the Applicant does not have sufficient investment funds available to meet the robust expenses of building this large project and has been relentlessly seeking to cheapen the facility envisioned to meet a bare budget. This would also explain the Applicant's relentless effort to shed monitoring and control requirements for the facility.

A March 7, 2005 e-mail from Kathleen Jarema (US Coking Group, LLC Corporate Secretary) indicates in regard to apparent waste sludges at the site of the Current Year 2005 Facility:

"Also, I desperately need to get that sludge removal confirmed and a copy of the removal contract. I cannot begin construction without that happening."

Again, another admission that construction has not commenced. A February 3, 2005 e-mail from James Hamilton [Mannik & Smith Group, Inc.] to Karen Jarema and Matt Sapara with subject line of "Final revised US Coking Property Description for Lease" indicates:

"The attached lease survey reflects those items Kathleen and Matt discussed pertaining to increasing the northerly boundary and westerly to the edge of the access road."

This appears to indicate that site boundary and land arrangements for the facility have not been completed as of February 3, 2005. Four other communications dated December 22, 2004, February 11, 2005, January 10, 2005 and December 21, 2004 all indicate similar non-finalization of site boundary and institutional arrangements whose finalization would be necessary for commencement of construction.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: We agree that construction on this project has not yet commenced. However, applicability of either PSD or non-attainment New Source Review is based on the date of issuance of the final permit. The final PTI for FDS coke was issued on June 14, 2004. On June 14, 2004, Lucas County was in attainment for ozone. Since this source has not yet been constructed, the permittee could not have made a physical change to the process or a change in the method of operation of the process triggering the definition of modification under OAC rule 3745-31-01. For this reason, the revisions to the FDS Coke PTI are classified as an Administrative Modification.*

### Comment #84

Fact issues posed by Applicant's October 27, 2004 submittal application for a permit to install:

On October 27, 2004, Kathleen Jarema, Corporate Secretary for FDS Coke Plant, LLC. submitted an Application for a Ohio EPA air permit to install. This application was signed and submitted under an authorization indicating:

“Authorized Signature: Under OAC Rule 3745-31-04, this signature shall constitute personal affirmation that all statements or assertions of fact made in the application are true and complete,, comply fully with applicable state requirements, and shall subject the signatory to liability under applicable state laws forbidding false or misleading statements.”

Page 3 of Section I of the document indicates the application is a “modification to an existing air contaminant source/facility.” and an “Administrative Amendment for Relocation of Emission Unit and Increased Operational Flexibility.” Despite the effective date of the ozone nonattainment designation as of June 15, 2004, the Applicant claimed “not affected” as to non-attainment new source review.

On the first page of each Section II submittal in the October 27, 2004 application, in response to the question of ....”When did/you will begin to install or modify the air contaminant source? (month/year),” Kathleen Jarema, on behalf of FDS Coke Plant, LLC, replied in answer as “10/04.”

The statements by the Applicant in the October 27, 2004 PTI Application for the Current Year 2005 Proposal cited in the prior two paragraphs above cannot be deemed to be correct and truthful representations. The Applicant's certification of these statements was submitted in contravention of the authorization/certification provisions of the air PTI application and are against the great weight of evidence.

There was no commencement of construction in October, 2004. There was no contract entered to construct the facility as envisioned in the Year 2004 Former Facility Proposal. As of May-June, 2005, the Applicant held no air PTI authorization to construct the facility as envisioned under the Current Year 2005 proposal and Applicant's business partners appear to have knowledge indicating that no contract to construct the Current Year 2005 proposal was at that time in hand. Applicant's

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

own consultant and representative admitted that the Year 2004 Former Facility Proposal version of the project was not commercially viable. There was no existing major stationary source represented by this non-facility. The Applicant's denial that October 27, 2004 PTI application had no consequences for nonattainment new source review was not correct.

*Response: We agree that construction has not commenced and that this permit is not a modification of an existing major stationary source. This permit is for the Administrative Modification of the PTI for the FDS Coke Plant. Also, see response to Comment #s 1 & 2.*

### Comment #85

Applicant's October 27, 2004 application submittal for a revised air permit to install and Ohio EPA's May, 2005 holdings in its revised staff determination that the proposed revised changes in the air permit to install are Administrative Modifications to an existing major stationary source must be held as unlawful, erroneous, abusive and against the great weight of evidence

The Applicant's position in its October 27, 2004 submittal application for a revised PTI that it commenced construction of its facility in October 2004 and that the application was for modification of an existing major stationary source of pollution cannot be held as a valid or lawful holding. There was no existing source as there was no commencement of construction.

Under the Federally approved Ohio State Implementation Plan<sup>1</sup> for Prevention of Significant Deterioration and New Source Review:

“‘Commence’ as applied to construction of a major stationary source or major modification means that the owner or operator has all necessary preconstruction approvals or permits and either has:  
(1) Begun, or caused to begin, a continuous program of actual on-site construction or the major stationary source or major modification, to be completed within a reasonable time; or  
(2) Entered into binding agreements or contractual obligations (which cannot be canceled or modified without substantial loss to the owner or operator) to undertake a program of actual construction of the major stationary source or major modification to be completed within a reasonable time.” OAC 2745-31-01(T)

Although the Applicant had obtained a final air permit to install the Year 2004 Former Facility Proposal in June, 2004, the Applicant instead chose not to construct this facility. Instead, the Applicant appealed the permit to the Environmental Review Appeals Commission. Then, during the pendency of this still unresolved appeal, the Applicant submitted a new application for a newly amended air permit to install the Current Year 2005 Proposal for a different facility with a different configuration, different emission controls, different monitoring proposed, different emissions, different ambient impact to be sited in a different location.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Applicant cannot claim that it has “commenced construction” as this term is defined at OAC 3725-31-01(T) and that the current permit proposal is for modification of an existing facility because the Applicant never commenced construction of the facility with its Current Year 2005 Proposal attributes.

There can be no commencement of construction on the facility as configured in the Current Year 2005 Proposal as this facility does not have “...all necessary preconstruction approvals or permits...” Nothing in the air permit to install issued on June 14, 2004 authorized a facility with the Current Year 2005 Proposal configuration to be constructed. There was nothing in the control technology review, the air quality impact review and the public participation review inherent in the June 14, 2004 permit review that would, in any way at all, have authorized construction of a coke oven in the configuration presently envisioned. Any “commencement of construction” of a facility in the fundamentally different configuration of the Current Year 2005 Proposal under the alleged aegis of the June 14, 2004 air permit to install would constitute a violation of OAC 3745-31-13(A), the Clean Air Act and the Ohio State Implementation Plan Prevention of Significant Deterioration and Nonattainment New Source Review Requirements.

The Applicant’s claim that it had commenced construction in October 2004 on the facility configuration as it is deemed under the Current Year 2005 Proposal must be held as invalid and for naught because such a claim is barred by the requirement under OAC 3725-31-01(T) that commencement cannot take place until the owner/operator has obtained “...all necessary preconstruction approvals or permits...” If the Applicant claims that it has commenced construction on the facility in its Current Year 2005 Proposal configuration but outside the meaning of OAC 2745-31-01(T), then that admission should be taken as a prima facie admission of federally significant violations of prevention of significant deterioration and nonattainment new source provisions of the Federally approved Ohio State Implementation Plan.

<sup>1</sup> Ohio EPA’s present Prevention of Significant Deterioration Rules and Nonattainment New Source Review Rules were approved by U.S. EPA as part of the Federally approved and enforceable Ohio State Implementation Plan under the Clean Air Act on January 22, 2003 at 68 FR 2909-2912 and January 10, 2003 at 68 FR 1366-1370, respectively. The Ohio EPA rules at OAC 3745-31-01(III) also incorporate by reference federal PSD and nonattainment NSR rules at 40 CFR §52.21 and 40 CFR Part 51, Subpart I, respectively.

*Response: See response to Comment #s 1 & 2.*

Comment #86

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Ohio EPA cannot allow the Applicant to gain retroactive status to evade non-attainment New Source Review when issuing a final permit under the aegis of either an “Administrative Modification” or a “Settlement” of an ERAC appeal action.

The assertions of both the Applicant and Ohio EPA that the present permit proceeding is for an “administrative modification” of a permit to install as shown in the application must be rejected as invalid and contrary to controlling Ohio EPA rule provisions. There can be no “modification” of a source that doesn’t exist and has not commenced construction. Under Ohio rules:

“‘Administrative modification(s)’ is defined as a change to a permit to install that does not meet the definition of a “modification” under rule 3745-31-01 of the Administrative Code.”

The concept of “administrative modification” was never intended to describe a situation where a change involved building a different facility with different emissions at a different location at a different time in regard to nonattainment designation dates and having different ambient impacts subject to different emission control rules and using different process technology with different uncontrolled and controlled emission rates, different emission control techniques and different compliance monitoring.

The presently proposed permit for the Current Year 2005 Proposal cannot be defined as some type of minor administrative change. At the very least, the currently proposed permit must be regarded as a complete replacement permit for a previously issued new source review permit for a new major stationary source. In fact, that is the way the proposed permit has been published with completely new text and not as an amendment to a previously published permit text. In addition, a new, completely revised staff determination has been published.

As a complete replacement permit to allow construction of a new major stationary source, this permit must be regarded as the potential final permit for the facility issued on the day when Ohio EPA makes its decision and subject to the rules in effect on the day the decision is made. This permit is for a new facility and it is still a new major stationary source which has not commenced construction. Prior to commencement of construction it must gain air quality permitting approvals that conform to the requirements of the Ohio State Implementation Plan.

The Applicant knew full well that any appeal of its permit would not be decided until after the ozone nonattainment designation effective date of June 15, 2004. The ERAC appeal panel is not empowered to relax Ohio EPA rules to allow sources to evade the requirements of a final permit to conform to the required non-attainment new source review requirements. Nor can Ohio EPA call a permit an “administrative modification” in order to give a source retroactive nonapplicability of nonattainment requirements as though a permit was being issued on June 14, 2004 and not some future day in year 2005 under a different rules regime.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: We agree that the proposed changes can not be considered a modification, because construction has not commenced. This is why the changes proposed in this PTI are considered an Administrative Modification to the June 14, 2004 final PTI. The commentor states that the concept of an Administrative Modification was not intended to describe the situation presented with the revisions requested by FDS Coke.*

*The proposed location of the facility has moved slightly west, however, the location is still located on contiguous property owned by the Toledo-Lucas County Port Authority. Also, see response to Comment #s 1, 2 & 77.*

### Comment #87

Applicant's Current Year 2005 Proposal for a coke oven facility did not receive nonattainment New Source Review and the proposed permit does not properly authorize construction under the Clean Air Act of a major stationary source with emissions of nitrogen oxides and volatile organic compounds in a designated ozone nonattainment area.

The Applicant's Current Year 2005 Proposal for a coke oven facility is a major stationary source located in a designated ozone nonattainment area in Lucas and Wood Counties in Ohio. The effective date of that nonattainment designation was June 15, 2004. The Applicant is now seeking a final permit decision for the Current Year 2005 Proposal of a major stationary source after the applicability date for the nonattainment designation of the area in which the new major source is to be located.

The Applicant's final permit for the present configuration of the facility is subject to nonattainment new source requirements, including a lowest achievable emission rate (LAER) review for nitrogen dioxide and volatile organic compounds, a requirement to show that all facilities owned by, controlled by or in common control with the Applicant are in compliance with emission limitations or a schedule for compliance with emission limitations in Ohio and emission offset requirements. The required nonattainment review has not been performed and, in fact, the facility as presently proposed does not have a level of emission control technology that can be deemed as lowest achievable emission rate.

No aspect the proposed configuration of the facility allowing uncontrolled venting emissions can be deemed to be LAER control for nitrogen oxide and volatile organic compound emissions. The Applicant continues to claim selective non-catalytic reduction as being technically infeasible even as stable temperature conditions in common oven flue gas mains is claimed as providing exemplary control of volatile organic compounds – an inconsistent position. The Applicant has failed to incorporate Selective Catalytic Reduction which has been deemed technically feasible. For these reasons, the Current Year 2005 Proposal facility cannot be considered to have incorporated LAER technology for nitrogen oxide and volatile organic compound control.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

Any issuance of the proposed permit by Ohio EPA constitutes a violation of the Ohio State Implementation Plan non-attainment new source review requirements. If Ohio EPA nevertheless issues the permit as proposed, the Applicant will be in violation of the Ohio State Implementation Plan and the Clean Air Act if they commence construction of the facility without the required nonattainment new source review permit.

The Applicant has not revealed the identity of parties controlling, controlled by and in common control with FDS Coke, LLC and US Coking Group. Accordingly there cannot have been any review of all such entities to determine whether they were all in compliance with emission limitations and schedules of compliance for any CAA regulated facilities any of these entities may control in Ohio.

Finally, we note that Ohio EPA is violating its own “guidance”<sup>1</sup> to the regulated community as to the effect of a “final” permit issued after the nonattainment applicability date. Ohio EPA noted on February 19, 2004:

“If I apply for a PSD permit before the effective date of the redesignation but my final permit is not issued before the effective date of the redesignation, can I still get the PSD permit?”

No. According to U.S. EPA, once the area becomes nonattainment, any major NSR permit issued must be a nonattainment NSR permit. If a PSD permit was applied for before the effective date of the redesignation, then the permit must either be issued before the effective date of the redesignation, or the permit must be revised to meet the nonattainment NSR requirements.....

If a source got a permit under PSD but had not started construction before the area switched to nonattainment, can they still start construction?

If the facility gets their final PSD permit before the effective date of the redesignation, then they can start construction as a PSD permit within the 18- month period (a 12-month extension is possible). If the permit expires, then they would have to start over as a nonattainment permit.

What types of NSR permits are affected by the redesignation?

The following permit types can be affected: 1. PSDs. This is because a PSD application would have to be issued as a nonattainment NSR permit if the final permit was not issued before the redesignation.

In the present case, the Current Year 2005 Proposal configuration of the facility will not receive a “final permit” until after the June 15, 2004 date of the ozone nonattainment designation.

Under these circumstances Commenters expect the Applicant to violate the Clean Air Act in the near future by commencing construction on a major stationary source in a nonattainment area without

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

a nonattainment NSR permit and review. Issuance of the proposed Ohio EPA permit will not shield the Applicant from actions brought in Federal District Court for declaratory rulings and injunctive relief under 42 USC §7604(a)(3) to enforce the Federally Approved Ohio State Implementation Plan NSR requirements, 42 USC §§7503(a)(1)-(5) and 42 USC §7410(a)(2)(I), among others.

<sup>1</sup> See February 18, 2004 document at <http://www.epa.state.oh.us/dapc/files/nsrtransition01.pdf/>

*Response: We agree with most of the above statements, except for the fact that the permit changes requested by the applicant result in the application being considered a new major stationary source. The changes being made by the applicant meet the requirements of being considered an Administrative Modification to the June 2004 PTI and is subject to PSD review, rather than Nonattainment NSR. Also, see response to Comment #s 1 & 2.*

Comment #88

Implications of Ohio's NSR permitting rules and federal nonattainment NSR Rules on the proposed FDS Coke Plant PTI application and proposed permit issuance.

Certain applicability provisions of federally approved Ohio EPA rules going to commencement of construction have regulatory impact on the proposed facility and the rules under which it is permitted apart from the actual timing of final permit issuance.

Ohio's attainment New Source Review rule provides the following:

“(A) Start construction limitations. In accordance with this chapter of the Administrative Code, no major stationary source or major modification located in an attainment area shall begin actual construction unless, at a minimum, the requirements in rules 3745-31-01 through 3745-31-20 of the Administrative Code have been met and the stationary source has obtained a valid Ohio EPA permit to install.....”

(C) Attainment/non attainment applicability. The requirements contained in rules 3745-31-10 through 3745-31-20 of the Administrative Code apply only to any major stationary source or major modification that would be constructed in an area that is designated as attainment or unclassifiable under 40 CFR 81.336. (OAC 3745-31-13(A) & (C)) (emphasis added)

Paragraphs A and C read together above show a separate and distinct requirement binding on the Applicant apart from mere Ohio EPA PTI issuance that prohibits commencement of construction of a facility considered under the attainment NSR rules at the time of such a commencement of construction. As per the Applicant's planned construction schedule, at the prospective future time

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

of the commencement of construction of the proposed FDS coke oven, the facility will most definitely be located in an ozone nonattainment area as such a final designation will be in place as of June 15, 2004. Paragraphs A and C together act as a prohibition to bar issuance of a proposed permit carried forth under the attainment NSR provisions in OAC 3745-31-10 through 3745-31-20 since these provisions require a future prospective determination in permitting determined as of the date of commencement of construction rather than as of the date of permit issuance.

Similar provisions are found in Ohio EPA's nonattainment NSR rules:

“(A) Start construction limitations. No owner or operator of a major stationary source or major modification located in a nonattainment area shall begin actual construction of such major stationary source or major modification unless, as a minimum, the requirements in rules 3745-31-21 through 3745-31-27 of the Administrative Code have been met and the owner or operator of the stationary source has obtained a valid Ohio EPA permit to install.”

“(C) Attainment/non attainment applicability. Except as provided in rule 3745-31-21 of the Administrative Code, the requirements contained in rules 3745-31-21 through 3745-31-27 of the Administrative Code apply only to any major stationary source or major modification that would be constructed in an area designated under 40 CFR 81.336 as nonattainment for an air pollutant from which the stationary source or modification is major.” OAC 3745-31-21(A) & (C)

The plain meaning of all of the provisions in this subsection is that the type of NSR applicability that comes into play depends on the attainment/nonattainment status of the area where the FDS coke oven is to be construction as of the time that construction is expected to commence as per the Applicant's timetable. For ozone, commencement of construction will take place after June 15, 2004 when ozone nonattainment status of the Lucas County source location will be definitively known as per a recent Federal Register notice.<sup>1</sup> As a result, Rule 3745-31-21 requires that permitting of the proposed FDS coke ovens take place under the nonattainment NSR rules of OAC 3745-31-21 through 3745-31-27.

<sup>1</sup>See 69 FR 23858

*Response: See response to Comment #87.*

Comment #89

Provisions at OAC 3745-31-23 and 40 CFR §51.165(b)(1)-(4) must be read to prohibit issuance of the proposed permit.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

OAC 3745-31-23 is written to apply to facilities located in attainment/unclassifiable areas if emissions from such a source...

“...would exceed the following significance levels at any locality that does not meet the National Ambient Air Quality Standard...

(C) Review of specified major stationary sources for air quality impact.

(4) The determination as to whether a major stationary source would cause or contribute to a violation of a National Ambient Air Quality Standard should be made as of the new stationary source’s startup date.”

Under this rule, areas of Lucas County outside the property line of the proposed FDS coke oven are presumed to be in violation of the ozone NAAQS because of the current ozone nonattainment designation as of June 15, 2004. Areas immediately outside of the FDS property would be “at any locality” as per the rule language.

As a result, the PTI application source impact assessment and ambient NAAQS standard compliance assessment should have been performed as to the conditions in January 2007 according to OAC 3745-31-23(4). The PTI application and Ohio EPA’s review of it never considered that a future date at startup would likely have to be considered and that aspect of this rule applied as it was an attainment area that was clearly in transition for ozone.

Similarly, 40 CFR §51.165(b)(1) provides that preconstruction permitting requirements in state implementation plans satisfying the CAA Title I, Part D nonattainment requirements:

“Such a program shall apply to any such source or modification that would locate in any area designated as attainment or unclassifiable for any national ambient air quality standard pursuant to section 107 of the Act, which is would cause of contribute to a violation of any national ambient air quality standard.” 40 CFR§51.165(b)(1)

Commenters conclude that OAC 3745-31-23 is applicable to the present situation with the proposed PTI application and proposed permit and that the requirements of OAC 3745-31-23(B) for LAER, compliance certification and net air quality benefit are also required. Since the PTI application and Ohio EPA’s review never considered these issues and requirements, the proposed permit cannot be approved.

*Response: See response to Comment #s 1, 2 & 86.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #90

Prevention of Significant Deterioration Review – Best Available Control Technology Determination Issues:

As a replacement permit to install issued in mid-2005, the Applicant should have provided a new top-down Best Available Control Technology review and Ohio EPA should have required a similar review on all emission units and all PSD pollutants. It has been over a year since prior reviews were done. Although the final emission limitation determination for the Current Year 2004 Proposal has been improved for coke pushing operations, there has been little other re-evaluation provided of prior control technology determinations. Several matters continue to be issues including renewed consideration of uncontrolled venting.

*Response: Our current review of the PTI application indicates that the BACT information is still adequate in today's standards.*

Comment #91

Ohio EPA's acceptance of the Applicant's proposal for eight days of uncontrolled venting for each of the six oven groups does not constitute a valid PSD Best Available Control Technology determination for sulfur dioxide and particulate emissions.

The Applicant seeks permission for an annual allowance of eight days of uncontrolled venting from each of 6 oven groups in order to allow boiler tube maintenance and inspection. During this time, process waste gas from 28 ovens will be discharged uncontrolled from the so-called "emergency vent" or "maintenance vent" stack.

*Response: We do consider the allowance of 8 days of uncontrolled venting for the coke oven batteries as meeting BACT for sulfur dioxide and particulate emissions. The applicant provided information on several options that would allow for controlling emissions during bypass of the heat recovery steam generators, however, all of the options resulted in costs that were in excess of what is required to comply with BACT for nonrecovery coke oven batteries. Also, see response to Comment # 4.*

Comment #92

The Applicant seeks to exempt itself from common process technology controls in the industrial and electrical utility steam generation industry and to operate in a manner which does not reflect state of the art controls.

In its relentless effort to build a cheaper facility, the Applicant proposes to omit common process intervention and automatic maintenance controls that are common in the steam generation and

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

electric utility industry. Industrial boilers and electric utility plants would never be allowed in permitting to have uncontrolled emissions solely to allow boiler heat transfer surfaces to be cleaned. Steam generation facilities solve this problem with automatic compressed air, steam or other automatic soot blowing technology. Steam generation and electric utility plants are expected to meet emission limitations and not have uncontrolled emission venting during such automatic soot blowing events.

Neither the Applicant nor Ohio EPA have examined how the number of days of venting and total venting-related emissions could be reduced through the use of this type of process control and automatic maintenance equipment. No cost information was submitted for use of this most reasonable and common type of process control technology.

Use of automatic boiler cleaning and soot blowing systems in the steam generation and electric utility industry must be considered as an accepted and common industry practice and such state of the art technology cannot be foreclosed in a PSD Best Available Control Technology determination on the basis of incremental costs being excessive. Where the use of a common industrial technology is widespread, such technology must be adopted as PSD BACT.

*Response: Each heat recovery steam generators proposed to be installed on this coking facility will be required to be shutdown annually for the annual boiler safety inspection required by the Ohio Department of Commerce, so sootblowing equipment alone will not prevent the requirement of annual shutdown of the heat recovery steam generators for inspection and maintenance. The draft permit contained the following requirement under Section III.A.II.9 of the terms and conditions for B901.*

*" It is recognized that soot formation can occur on the heat transfer surfaces of the heat recovery steam generators and reduce the heat transfer efficiency. The permittee shall implement maintenance procedures that allow for removal of soot from the heat transfer surfaces of the heat recovery steam generators without shutdown of the heat recovery steam generator(s). These maintenance procedures can include, but are not limited to, installation of sootblowers on the heat recovery steam generators to allow for periodic cleaning of the heat transfer surfaces."*

*The final permit also contains the above term and condition.*

**Comment #93**

Failure to require automatic soot blower/boiler cleaning capability for the facility raises fundamental questions about whether the facility will have sufficient overall waste gas vent control.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Applicant's November 22, 2004 letter indicates that the primary "suction control valve" for regulated waste gas draft flows is downstream from and on the cool side of each of the heat recovery steam generators. Unfortunately, the buildup of boiler deposits on heat recovery steam generator heat transfer surfaces has the potential to affect more than heat transfer in these boilers. It also can affect the ability to control waste gas evacuation volumetric flow, which is crucial to ensuring proper fugitive emissions control from all of the coke oven process groups.

It seems unlikely that the Applicant would be able to surrender boiler cleaning to a single once per year 8 day operation in the absence of soot blowing equipment and still be able to maintain adequate volumetric flow control and operational flexibility sufficient to maintain fugitive emission control in the batteries under severely degraded boiler deposit conditions. Boiler deposits can accumulate to increase flow resistance through the heat recovery steam generators and any such loss of control has the potential to limit the ability of the waste gas evacuation process to control battery fugitive emissions. This thus represents another potential source of emissions that Applicant has failed to consider in its venting-related BACT analysis.

*Response: See response to Comment #92.*

### Comment #94

Applicant's BACT analysis for emissions during venting during heat recovery steam generator bypass did not consider the effect of venting and gas bypass on increasing fugitive emission rates of sulfur dioxide, particulate matter and other criteria and hazardous pollutants from charging and pushing operations.

Although Applicant constantly speaks of maintaining negative pressures inside of coke oven battery groupings during normal operations, it is not likely that this process condition can be achieved during such venting conditions. During gas bypass condition, the downstream gas flow and induced fan operation will no longer be available to ensure that the volumetric rate at which waste gas is evacuated from process oven groups will exceed the volumetric rate of process gas generation.

As a result, there can be no clear guarantee that the inlet gas face velocity at charging and pushing oven openings will be maintained at their designed rates during gas venting incidents. Neither the Applicant nor Ohio EPA has analyzed this issue to determine the expected increased emission rates of fugitive pollutants from this effect during oven pushing and charging operations in oven groups undergoing uncontrolled gas venting. It is likely that the effect on charging and pushing fugitive emissions at these times will be substantial under gas venting conditions. Such conditions may also have an effect on visible emission compliance.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Failure to consider the effect of gas venting on pushing and charging emissions means that Applicant's sulfur dioxide and particulate matter BACT determination on venting emissions is defective and cannot be relied upon for decisionmaking.

*Response: The Agency had previous discussions with the oven technology provider (Uhde) in October 2004 regarding how the suction will be controlled during bypass of the heat recovery steam generators. Representatives from Uhde indicated that the the oven suction can be maintained by proper design of the bypass vent stack. During bypass venting, the applicant will still be required to comply with the visible emission limitations for charging, pushing and from oven door leaks.*

Comment #95

Applicant's BACT determination for venting does not consider the effects of such venting on emissions of hydrogen chloride.

Applicant's BACT determination never considered the effect of control decisions and options on emissions of hydrogen chloride. All of the hydrogen chloride produced in the process of coking will be released uncontrolled by such venting processes. The presence of hydrogen chloride, polycyclic aromatic compounds and elevated temperatures can be expected to generate exotic chlorinated compounds either in the discharge or in discharge plumes while cooling. BACT decisionmaking must consider the effects of control decisions on unregulated toxic and hazardous compounds as part of the environmental effects determination implicit in BACT decisionmaking.

*Response: A BACT determination is required to cover pollutants emitted in significant quantities that are specifically identified under 40 CFR 52.21(b)(23). Since hydrogen chloride (HCl) is not listed under 40 CFR 52.21(b)(23), a BACT determination is not required for HCl.*

Comment #96

Applicant does not appear to have credited operating costs from installation of backup heat recovery steam generators with increased revenues from maintaining steaming capacity.

The Applicant appears to have failed to consider countervailing economic benefits from installation of backup heat recovery steam generator capacity due continued generation of steam and resulting revenues that would occur if venting time were eliminated.

*Response: The Agency did not previously request this information from the applicant, and it was provided in a business confidential email dated June 4, 2004 to us. At that time, the applicant had based the economic benefit based on 14 days of bypass, and the economic benefit was not enough to make a difference in the BACT analysis. This PTI Administrative Modification allows for only*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*eight days of bypass, so the economic benefit for continued steam generation for these eight days is lower than the June 2004 analyses.*

Comment #97

Applicant's November 2, 2004 letter to Mike Hopkins concerning the venting issue states:

“However, the three to five days provided for the actual performance of maintenance activities does not include less frequent unplanned maintenance such as the periodic replacement of an HRSG heat exchanger.”

This raises the question of whether the Applicant potentially plans on many days of maintenance....potentially far more than 8 days at a time when venting would be necessary while coking operations continued. The Applicant has said nothing about systems to control boiler water chemistry and whether such systems will be in use in order to control scaling of boiler water tubes. If Applicant's real intent is to precipitate “maintenance” requiring many days of venting, the Applicant should be candid about such predicted operating modes so that venting BACT determinations can be realistic. The more days of uncontrolled emissions on an average annual basis the lower the incremental cost per ton of pollution eliminated. Realistic thought should be given to how boiler tube replacements will take place after 10-15 years and what this will practically entail while coking operations continue.

*Response: In previous discussions with the Agency, the applicant has provided information to us on the anticipated time required to perform annual inspection and maintenance on the heat recovery steam generators. We based the allowable time period of eight days of bypassing on the time required for annual inspection and maintenance of the heat recovery steam generators. We are aware that replacement of a heat recovery steam generator will take longer than routine annual inspection and maintenance of the heat recovery steam generators. Rather than allow the applicant to have more than eight days of bypassing every year to cover infrequent heat recovery steam generator replacement, we felt that emissions would be minimized by restricting the applicant to only eight days per year of bypass venting.*

Comment #98

Applicant's coke quenching particulate BACT determination did not consider all potentially available control approaches for quenching and thus failed to perform a suitable top-down BACT determination. Applicant's technology partner has pursued better controls in Germany which it will not be providing in the United States for the environment of Toledo area citizens.

Applicant's BACT determination for coke quenching was not updated even though the Applicant inadvertently submitted information from their technology partner that should have changed the

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

consideration of this issue and potentially the overall determination compared to information and analysis submitted a year ago.

The air permit file contains information from Thyssen Krupp about its new Schwelgern coke plant in Germany. Thyssen Krupp is the FDS Coke LLC technology provider. Although the Schwelgern plant is a recovery coke oven, the method of coke quenching should be directly transferrable to the Toledo facility.

Attachment 2 is Schwelgern plant information dealing with coke quenching. The coke quenching system is described as providing a level of particulate emission control performance on a par with dry, energy recovery quenching operations. In addition, they describe tank management of coke quenching recycle water rather than the uncontrolled pond management described in the Applicants original submittal. Tank management of coke quenching recycle water can be expected to provide better control of volatile organic compounds which may contaminate quenching water from incomplete coking occurrences.

The Applicant should have revised the BACT determination on coke quenching to consider this superior technology and particulate emission control afforded by coke quenching techniques its technology partner has installed in Europe.

Toledo's environment deserves no less protection from coke quenching particulate emissions. The Applicant indicates that coke quenching operations constitute 67% of total particulate emissions from the proposed facility on an annual basis or 463 tons per year for coke quenching particulate emissions out of a total of 690 tons per year for the entire plant. Permissible hourly emissions from the two quench towers combined exceed 300 lbs of particulate emissions per hour. Given the high permissible rate of hourly emissions and the expansion of pushing operations to 24 hour round the clock utilization, it is difficult to see how the annual particulate emission level will be met. At 300 lbs per hour, coke quenching could have a potential for 1314 tons/year of particulate from quenching alone in the absence of other factors limiting potential to emit.

Until the coke quenching PM BACT determination has been re-evaluated, the proposed permit and its BACT determination should not be approved by Ohio EPA.

*Response: Our current review of the PTI application indicates that the BACT information is still adequate in today's standards.*

Comment #99  
Coal Side Fugitive Emissions During Pushing Operations

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Although the Applicant has improved the emission control system to control fugitive emissions from pushing on the coke side of the battery, the Applicant's most recent submittals have been completely silent on hooding and control over the pushing ram on the coal side during pushing operations. It isn't clear that hood control is being provided over the pushing ram during such pushing operations. Hood control in this circumstance must be considered a BACT PM control method and this must be indicated in the BACT analysis and consideration of pushing-related fugitive emissions on the coal side.

*Response: Based on the information supplied by the applicant, coke ovens will operate under negative pressure, therefore particulate emissions will not occur during pushing from the charging side. Any particulates generated will be captured in the oven waste gas suction. This determination is consistent with the BACT analysis guidance.*

Comment #100

The Applicant did not perform a BACT review and demonstration for PM 2.5 and Applicant's PM 10 BACT review cannot substitute for the required PM 2.5 review.

Applicant's combustion-based process undoubtedly is a direct discharge source of PM 2.5 from the main combustion stack, charging operations, pushing operations, coke quenching and from door leaks. In particular, condensible particulate matter will preferentially form very small particles that are PM 2.5.

The definition of Best Available Control Technology provides, in part, for....

“Best available control technology means an emission limitation (including a visible emission standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the reviewing authority, on a base-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available method, systems, and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of such pollutant.....” 40 CFR §51.166(b)(12) (emphasis added)

The regulations further define “regulated NSR pollutant” as...

“Regulated NSR pollutant, for purposes of this section, means the following:

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

(i) any pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by the Administrator (e.g., volatile organic compounds are precursors for ozone).....” 40 CFR §51.166(b)(49), in part

Although Ohio has adopted 40 CFR part 51, Subpart I by reference, similar language has also been placed into Ohio EPA’s rules at OAC 3745-31-01(O) with the same ultimate consequence that a BACT demonstration must address all significant criteria pollutant emissions at a new major stationary source and that any emission of PM 2.5 is “significant” under OAC 3745-31-01(WWW)(2).

Notwithstanding the requirement for the major source FDS coke facility to produce a BACT determination on PM 2.5 in its PTI application, the Applicant has not performed such a determination and the BACT determination and the proposed permit must be rejected on this basis. The BACT determination provided for PM 10 cannot suffice for the requirement for a BACT determination for PM 2.5 since the plain meaning of the regulations is that PM 2.5 is a separate and distinct NAAQS criteria pollutant regulated under the Act. In addition it should be noted that PM 2.5 will have a greater potential human health respiratory/cardiac impact than particles of PM 10 that happen to be larger than 2.5 microns.

For the aforementioned reasons, Applicant’s PTI application and the proposed permit must be disallowed because of the failure to conform to the PM 2.5 BACT demonstration requirement.

*Response: Since this is an Administrative Modification of a PTI that was issued prior to the applicability of PM<sub>2.5</sub> rules, an analyses of PM<sub>2.5</sub> is not required.*

Comment # 101

Coal Handling PM Controls

Statements in the coke oven application about covered coal handling are potentially misleading as it is clear that the Applicant's business partner is intending to take over and separate coal terminal and storage aspects of the proposed facility. The CSX application for the new coal terminal clearly shows a number of uncovered coal piles which will have fugitive emissions. This facility should have been considered part of the coke oven permit since it will be a support facility with a purpose of providing greater than 50% of its output in support of coke oven operations.

Ohio EPA's decision to allow separate consideration of the CSX coal handling terminal allows the Applicant and CSX to evade PSD BACT fugitive emission control requirement that would otherwise be applicable to these new coal pile emissions units. The coal terminal should be brought back into the proposed coke oven permit and PSD BACT requirements should be applied to this emission unit.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: Ohio EPA's permitting system would require the FDS Coke and the CSX permits to be considered as one permit if the answer to all three of the below questions is "yes".*

*1. Are the air pollutant emitting entities at the industrial complex located at one or more contiguous or adjacent properties? Yes, the FDS Coke Plant is proposed to be located on property contiguous to CSX.*

*2. Are the air pollutant emitting entities under common control of the same person (or persons under common control)? No, both FDS Coke and CSX have indicated that they are not under common control.*

*3. Do the air pollutant emitting entities belong to a single major industrial grouping? Yes. Each entity's primary activity has a two-digit code provided in the Standard Industrial Classification (SIC) Manual. If any entities have the same two-digit SIC code, then they belong to a single major industrial grouping. This definition gets tricky when you have a situation involving two activities with different two-digit SIC codes, but one activity clearly supports the other activity. U.S. EPA has determined that, in this case, the supporting facility shares the same two-digit SIC code as the primary activity that it is supporting. The applicant has indicated that CSX could not be considered a support facility, however, we believe that if equipment contained in the 2005 CSX PTI handles coal destined for the FDS Coke Plant, there is reason to believe that CSX would be considered a support facility to FDS Coke.*

*Since the answers to all three of the above questions are not yes, the facilities are considered two separate facilities, and the CSX operations would not be considered as part of the proposed FDS Coke facility. Therefore, the CSX permit is not subject to PSD and BACT.*

*Although the CSX permit is not subject to PSD and BACT, the visible emission limitations imposed by Ohio Best Available Technology (BAT) contained in the CSX permit would clearly comply with a BACT level of control.*

### **Comment #102**

#### **Visible Emission Determinations**

Visible emission limitations must be subject to BACT determination, yet several visible emission limitations have been relaxed in the present permit proposal, particularly for charging emissions. There has been no analysis presented that can be considered a top down BACT review to properly determine visible emission limitations that are achievable as BACT.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: Ohio EPA conducted top down BACT analysis for PM/PM<sub>10</sub> emissions. The visible emission limitations in the PTI corresponds to PM/PM<sub>10</sub> emissions. Therefore, visible emissions limitations contained in the draft and final PTI meet BACT.*

*Further, Ohio EPA reviewed similar fugitive emissions sources and determined that visible emissions contained in the draft and final PTI are considered to meet Ohio BAT.*

Comment #103

Nitrogen Oxide Control Technology Determination

The Applicant would maintain they are subject to PSD Best Available Control Technology requirements for review of the nitrogen oxides control technology determination. Commenters assert that Applicants must provide Lowest Achievable Emission Rate under nonattainment rule requirement. However this section is written as though Applicant's position controls when it, in fact, does not.

*Response: Lowest Achievable Emission Rate (LAER) is a requirement that would apply if this Administrative Modification was subject to Nonattainment Area Review. However, this PTI Administrative Modification is subject to PSD which requires Best Available Control Technology. This Administrative Modification is not subject to Nonattainment Area Review and LAER.*

*Also see response to Comment # 1.*

Comment #104

Aspects of Applicant's nitrogen oxides (NO<sub>x</sub>) BACT demonstration improperly dismisses certain NO<sub>x</sub> controls without a proper basis and without consistency with other assertions contained in the demonstration.

The Applicant has rejected Selective Non-Catalytic Reduction (SNCR) as a NO<sub>x</sub> BACT control option on the basis of technical infeasibility. Applicant claims in their May 2004 comprehensive BACT review that:

“SNCR requires the addition of ammonia or a similar type of selective reductant in the combustion where the temperature is in the 1500 deg F to 2000 deg F range. In the case of the heat recovery coking process, the required temperature window is available only for a brief period during the combustion cycle and may occur anywhere along the coke over battery. Injection of a reductant into the gas stream that is within the temperature window is not possible, since the location is highly variable. For this reason, SNCR is not technically feasible.”<sup>1</sup>

Then, in Section 1.3 on carbon monoxide and VOC controls, it is asserted:

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

“In the heat recovery coking process, volatile matter is released from the coal bed and combusted within the coke oven. The goal of the heat recovery coking process is complete combustion, and thereby, the release of all the available energy. This approach inherently produces low emissions of CO and VOCs. The gases remain in the sole flues and common tunnel approximately 7 seconds where they are exposed to oxidizing conditions and temperatures from 1,600 deg to 2,500 deg F. These operating conditions can be compared to controlled-air incineration, which is considered state-of-the-art for destroying organic compounds and CO.”<sup>2</sup>

Then, in every other mention in the BACT report and in air quality modeling assumptions, the Applicants use 1800 degF as their nominal gas temperature characteristic, including for dispersion from vent releases and engineering calculations on such controls.

EPA cites the temperature window for SNCR as 1600 degF to 2100 deg F.<sup>3</sup>

The applicant cannot claim that temperatures of 1,600 to 2,500 deg F will be maintained for CO and VOC control with 7 seconds of gas retention time and then turn around and claim that temperatures will lower and not maintained in this range for purposes of arguing against the implementation of SNCR NOX control.

Reagent injection for SNCR can be automatically adjusted or even eliminated if the required reduction reaction temperatures are not present. An ammonia slip detector coupled with an automatic control system can also keep ammonia slip from becoming a problem with these systems. The Applicant is going to want to maintain stable temperatures at any rate in order to stabilize steam production rates for their steam customer. Stable steam rates require limiting the excess perturbation of process operating temperatures. Applicant’s summary dismissal of SNCR sited in common waste gas discharge tunnels is not credible under the circumstances.

<sup>1</sup> Applicant’s May 2004 Battelle consolidated BACT review, p.4

<sup>2</sup> Applicant’s May 2004 Battelle BACT report, p. 10

<sup>3</sup> <http://www.epa.gov/ttn/catc/dir1/fsncr.pdf>

*Response: Our current review of the PTI application indicates that the BACT information is still adequate in today’s standards.*

**Comment #105**

Applicant’s BACT Review on Selective Catalytic Reduction did not consider the beneficial effect installation of SCR NOx controls would have on increasing the ability of particulate control equipment to also control some of the mercury compound emissions.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

The Applicant's BACT review concerning selective catalytic reduction failed to consider that installation of SCR would, in addition to providing significant NO<sub>x</sub> control, potentially increase mercury compound control efficiency. SCR systems are known to catalyze the conversion of elemental mercury [virtually uncontrolled in traditional PM control systems] to oxidized forms which can more easily be collected by downstream spray dryer/fabric filter PM control systems.

Given the enormous problem that mercury emissions poses for this facility, such consideration in a BACT review should have taken place from the standpoint of proper environmental management. However, this type of evaluation is also a required part of BACT 'top down' review.

The first time this doctrine was clearly articulated was in a case of a municipal waste combustor in California in which citizen commentators appealed a decision of EPA Region IX on a proposed PSD permit for the North County Resource Recovery Associates.<sup>1</sup>

In a remand order back to EPA Region IX, then-EPA Administrator Lee Thomas wrote as to petitioner's allegations:

"Among the reasons the petitioners present for granting review is Region IX's alleged failure to establish emission limitation for all pollutants, including hazardous pollutants, that will or could possibly be emitted from the facility; the alleged inadequacy of Best Available Control Technology (BACT) determinations;..... With one exception, Region IX has addressed each of petitioners' allegations and has provided rational explanations for not making any alterations in its permit determination.

The exception concerns Region IX's assertion that EPA lacks the authority to "consider" pollutants not regulated by the Clean Air Act when making a PSD determination. This assertion is correct only if it is read narrowly to mean EPA lacks the authority to imposed limitations or other restrictions directly on the emission of unregulated pollutants. EPA clearly has not such authority over emissions of unregulated pollutants.

Region IX's assertion is overly broad, however, if it is means as a limitation on EPA's authority to evaluate, for example, the environmental impact of unregulated pollutants in the course of making a BACT determination for the regulated pollutants. EPA's authority in that respect is clear.....

As defined in §169(3) the term BACT refers to an "emission limitation" that is set on a case-by-case basis for regulated pollutants, "taking into account energy, environmental, and economic impacts and other costs" associated with the particular emission control system that is selected to achieve the BACT emissions limitation. 42 USC §7479(3) (emphasis added) (40 CFR §52.21(b)(12).

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Hence, if application of a control system results directly in the release (or removal) of pollutants that are not currently regulated under the Act, the net environmental impact of such emissions is eligible for consideration in making the BACT determination. The analysis may take the form of comparing the incremental environmental impact of alternative emission control systems with the control system proposed as BACT; however, as in any BACT determination, the exact form of the analysis and the level of detail required will depend upon the facts of the individual case. Depending upon what weight is assigned to the environmental impact of a particular control system, the control system proposed as BACT may have to be modified or rejected in favor of another system.

In other words, EPA may ultimately choose more stringent emission limitations for a regulated pollutant than it would otherwise have chosen if setting such limitations would have the incremental benefit of restricting a hazardous but, as yet, unregulated pollutant.”

The precedent that PSD BACT determinations must consider the effects of control technology decisions on unregulated pollutants as part of the environmental impact analysis has been extended and clarified in EPA’s transitional guidance memo after the passage of the 1990 Clean Air Act Amendments.

“Toxic Effect of Unregulated Pollutants Still Considered in BACT Analysis -- Based on the remand decision on June 3, 1986 by the EPA Administrator in North County Resource Recovery Associates (PSD Appeal No. 85-2), the impact on emissions of other pollutants, including unregulated pollutants, must be taken into account in determining BACT for a regulated pollutant. When evaluating control technologies and their associated emissions limits, combustion practices, and related permit terms and conditions in a BACT proposal, the applicant must consider the environmental impacts of all pollutants not regulated by PSD. Once a project is subject to BACT due to the emission of nonexempted pollutants, the BACT analysis should therefore consider all pollutants, including Title III hazardous air pollutants previously subject to PSD, in determining which control strategy is best.”<sup>2</sup>

As such, both the Applicant and Ohio EPA/TDES must consider the effects of all control technology selections, options and the setting of emission standards for criteria pollutants on unregulated pollutants from this process. This would include such pollutants as poly-chlorinated dibenzo-dioxins/furans, polycyclic aromatic hydrocarbons, other products of incomplete combustion and potentials for increased collection efficiency of toxic metals. None of this analysis has been carried out in Applicant’s current technology determination and BACT review report.

<sup>1</sup> EPA Administrative Decision In the Matter of North County Resource Recovery Associates, Remand Order, PSD Appeal No. 85-2, June 5, 1986.

<sup>2</sup> Ibid, March 11, 1991 Seitz memo at P. 3.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: As indicated in the response to Comment #3, there is limited information available on mercury emissions from nonrecovery coke ovens. There has been significant study on the use of activated carbon injection for the control of mercury emissions from coal-fired boilers. Although characteristics of mercury emissions from coal-fired boilers may differ from nonrecovery coke oven emissions, it appears to be the best current information available for control of mercury emissions from coal that will be used as a raw material in the coke ovens.*

*The commentor references a memo from U.S. EPA dated August 15, 1986 regarding North County Resource Recovery Associates. The 1986 memo indicates that BACT can include a review of control technologies that control non-regulated pollutants. The memo indicates that in the North County case, the North County air pollution control technology provided for a greater combined overall control of regulated and non-regulated pollutants than another air pollution control technology that provided the greatest removal of regulated pollutants.*

*However, U.S. EPA also provided supplemental guidance<sup>1</sup> on July 28, 1998 to the original North County memo. The supplemental guidance memo indicates that it is appropriate for agencies to proceed on a case-by-case basis using the best information available. Based on review of available information, Ohio EPA believes that BACT has been met by installation of activated carbon injection. We have reviewed available mercury control information and are not aware of any emission test results on coke oven emissions demonstrating that a greater level of control is achieved through the use of a combination of selective non-catalytic reduction and activated carbon injection.*

*Further, there is little information available regarding total hazardous air pollutant emissions from nonrecovery coke oven batteries. The best available emission information currently available for nonrecovery coke oven emissions is the current U.S. EPA draft AP-42 section for coke ovens. For this reason, we are requiring the applicant to perform emission testing for acid gas emissions, Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans and metals from the proposed installation after startup to quantify those emissions. We will review the the test results and determine if the pollutants comply with Ohio EPA's air toxics policy. Also, we have evaluated all the pollutants of concern in this PTI.*

*<sup>1</sup>Memorandum from U.S. EPA 8:27-1 - Supplemental Guidance on Implementing the North County Prevention of Significant Deterioration (PSD) Remand dated July 28, 1998*

Comment #106  
Issues of Improper and Incomplete Emissions Characterization

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Issues arising from failure of the applicant to characterize hydrogen chloride and hydrogen fluoride as well as their aqueous acidic forms; and failure of the permit agencies to require proper information submittal and to properly determine application completeness.

Applicant's submittal fails to consider likely hydrogen chloride and hydrogen fluoride emissions, as well as their aqueous acidic compounds, from the proposed coke oven.

Applicant has not submitted any information to quantify hydrogen chloride and hydrogen fluoride emissions from the proposed facility. Both of these substances are designated hazardous air pollutants under 42 USC §7412(b) and are known to be emitted by coal combustion facilities in substantial quantities. Although emission factors for these two pollutants do not appear in the draft AP-42 table of HAP emission factors for nonrecovery coke ovens, this is not an excuse for failing to quantify hydrogen chloride and hydrogen fluoride when both the Applicant and the permit issuing agency is required to quantify all HAPs for purposes of MACT Applicability requirements.

EPA's final AP-42 emission factor for bituminous coal combustion indicates a factor of 1.2 lbs/ton for hydrogen chloride and 0.15 lbs/ton for hydrogen fluoride.<sup>10</sup> At 2.06 MM tons (wet coal) per year at 8% moisture that is 1.91 MM tons (dry coal) per year. The resulting uncontrolled hydrogen chloride emission rate would be 1150 tons of hydrogen chloride and 145 tons of hydrogen fluoride. A recent article in Coal Age magazine details the average chlorine content of various United States coal from various regions;<sup>11</sup> the article indicates the following coal chlorine contents for coals that might be used at the proposed coke oven by reason of distance from mine location to market considerations:

Supply region	Typical chlorine content (ppm)
Central Appalachia	1027
Illinois Basin	1224
Monongahela River	1071
North Appalachia; Ohio	831

As a result, candidate coal region coal supplies indicate that nominal chlorine content might range from 800-1000 ppm. At 1.91 MMT dry coal consumption per year, the nominal process input rate calculated on this basis would be 1530 to 1910 tons of hydrogen chloride per year.

As a result of these estimates of uncontrolled emission rates of hydrogen chloride ranging from 1150 to 1910 tons per year and 145 tons per year of hydrogen fluoride, the issue of hydrogen chloride and hydrogen fluoride acid gases cannot be discounted. The permit granting agency should have required submittal of coal analysis information and control efficiency information in order to properly characterize emissions of these compounds. In the absence of such information, the application is

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

incomplete and not approvable; Ohio EPA/Toledo Division of Environmental Services abused their discretion in choosing not to gain submittal of such information when it made a permit issuance decision.

With total H-Cl and HF acid gases ranging from 1300 to 2050 tons per year, HAPs from these two pollutants alone would be from 26 to 41 tons per year at 98% control efficiency from acid gas scrubbing in addition to the admitted 6.7 tons per year of other pollutants.

<sup>10</sup> See Page 1.1-36, Table 1.1-15 of EPA AP-42 1.1 for bituminous coal combustion.

<sup>11</sup> See [http://coalage.com/ar/coal\\_mercury\\_emissions\\_fuel/](http://coalage.com/ar/coal_mercury_emissions_fuel/)

*Response: We have not located emissions data for sulfuric acid or hydrogen chloride emissions for nonrecovery coke ovens. The best available emission information currently available for nonrecovery coke oven emissions is the current U.S. EPA draft AP-42 section for coke ovens, and these two pollutants are not listed in the draft section of AP-42. For this reason, we are requiring the applicant to perform emission testing for acid gas emissions from the proposed installation after startup to quantify acid gas emissions. We will review the acid gas test results and determine if the pollutants comply with Ohio EPA's air toxics policy.*

### Comment #107

Ohio EPA/Toledo Division of Environmental Services have failed to properly specify HAP emission limitations involving hydrogen chloride, hydrogen flouride and their aqueous acidic forms.

The permitting agencies have imposed total hazardous air pollutant emission limitations on main combustion stack, pushing, charging and vent stack emissions, but the facility will not be able to comply with these emission limitations under any scenario where actual total HAP emissions are being determined because none of the emission limitations consider hydrogen chloride and hydrogen flouride. Failure to fully characterize the hazardous air pollutant emissions from the proposed facility as potential limits thus fails to properly inform both the Applicant and the public of expected emission limitations and impacts from this facility.

In particular, venting emissions of hydrogen chloride will be completely uncontrolled with no acid gas control train. If venting is carried out on 1/6th of the uncontrolled gas flow and pollutant rate, venting will emit the HAPs hydrogen chloride and hydrogen flouride at the rate of 50-76 lbs per hour which is far higher than the 1.42 lbs per hour of total HAPs allowed under the permit.

*Response: Since there is no all-inclusive list of emission factors available for the entire list of hazardous air pollutants, and since coal quality alone can not be used to estimate all hazardous air pollutant emissions, the compliance method for the hazardous air pollutant emission rate is based on the draft AP-42 emission factors for nonrecovery coke ovens.*

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

### Comment #108

The decision of the Ohio EPA Director/TDES on application completeness while not requiring coal analysis information sufficient to determine hydrogen chloride and hydrogen fluoride emissions is an abuse of discretion.

OAC 3745-31-09(C)(1) requires a completeness determination on Applicant's PTI submittals to Ohio EPA and OAC 3745-31-04(A) requires a decision by the Director of Ohio EPA on what he/she "deems necessary" to be submitted in an application for a PTI. By failing to require that the Applicant submit coal analysis information sufficient to properly determine hazardous air pollutant emissions, including hydrogen chloride and hydrogen fluoride, from processing such coal at the facility, the Director of Ohio EPA/TDES have abused their discretion in making either an announced and/or de facto finding of application completeness under OAC 3745-31-09(C)(1) and in accepting applicant's submittal as sufficient under OAC 3745-31-04(A).

*Response: We have requested that this information be provided, however the applicant has indicated that they may blend from between six and 20 different coals to form coal blends needed to meet future customer coke specifications. Given the large number of coal blends, the applicant was not able to estimate the maximum hydrogen chloride and hydrogen fluoride emissions.*

*Also see response to Comment #107.*

### Comment #109

#### Issues Arising from the Matter of Condensable Particulate Emissions

In exploring certain primary combustion-related emissions at the proposed FDS Coke facility, Applicant and Ohio EPA/TDES relied heavily on published draft AP-42 emission factors for nonrecovery coke ovens and some engineering estimates. However, the published nonrecovery coke oven emission factors are really only based on a single facility, the Jewell Coke site in VA that is not necessarily representative of the proposed site because it doesn't incorporate either spray-dryer fabric filter emission controls and heat recovery steam generators. In addition, the applicant has asserted an engineering estimate of 0.03 grains per dry standard cubic foot for an uncontrolled PM emission factor but there is no basis provided in Applicant's submittal for this factor.

#### The Indiana Harbor Coke Company Experience Shows Condensable Particulate Emissions are a Significant Issue with Nonrecovery Coke Oven Technology

Commentors have reviewed regulatory files on the Indiana Harbor Coke Company (IHCC) facility in East Chicago, IN. This facility is the only nonrecovery coke oven operating in the United States that also incorporates a spray dryer/fabric filter emission control train and heat recovery steam generators for a co-generation effort. This facility is slightly larger than the proposed FDS Coke facility with 268 ovens, 16 vent stacks and heat recovery generators, a maximum coal charge

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

capability of 2794.5 tons of dry coal/day, 2,039,985 tons of dry coal/year (2,203,184 tons of coal per year, wet basis) and 2013.6 tons of coke pushed per day.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

Date of Test/method	Stack/Process Unit	Filterable PM	Condensable PM	Total PM
12/14-16/98; 1-4, 5, 202; 585 tons/hr dry coal charged during test	A & B Battery Charging Stack, 202, baghouse	0.458 lb/hr, 0.0008 lb/ton; 0.0019 gr/acf; 0.0020 gr/dscf	1.38 lb/hr, 0.0023 lb/ton; 0.0054 gr/acf; 0.0059 gr/dscf	1.837 lb/hr, 0.0031 lb/ton; 0.0073 gr/acf; 0.0079 gr/dscf
12/15-17/98; 1-4, 5, 202; 573 tons/hr dry coal charged during test	C and D battery Charging Stack, 203, baghouse	0.292 lb/hr, 0.0005 lb/ton; 0.0013 gr/acf; 0.0014 gr/dscf	3.122 lb/hr, 0.0054 lb/ton; 0.0135 gr/acf; 0.0144 gr/dscf	3.414 lb/hr, 0.0059 lb/ton; 0.0148 gr/acf; 0.0158 gr/dscf
12/15-16/98, 1-4, 5, 202; 223.2 tons/hr coke during test	Pushing Baghouse Stack, 204	3.824 lb/hr; 0.017 lb/ton; 0.0023 gr/acf; 0.0025 gr/dscf	6.279 lbs/hr; 0.028 lb/ton; 0.0039 gr/acf; 0.0042 gr/dscf	10.103 lb/hr; 0.045 lb/ton; 0.0062 gr/acf; 0.0067 gr/dscf
12/14-15/98; 1-4, 5, 202; 244 tons/hr, 3566.5 tons/day during test	Screening Station Stack 265; baghouse control	0.443 lb/hr; 0.0019 gr/acf; 0.0020 gr/dscf	3.044 lb/hr; 0.0130 gr/acf; 0.0138 gr/dscf	3.487 lb/hr; 0.0149 gr/acf; 0.0158 gr/dscf
12/2/99; 1-5, 9,202; 90% of rated steam capacity	Main combustion stack, 201; baghouse control	4.29 lb/hr	33.25 lb/hr	37.45 lb/hr; all pm=pm10
5/11-12/98; 169,261 acfm; 39,002 dscm; 1502 degF	A battery #2 vent			0.0033 gr/acf; 0.0146 gr/dscf; 4.865 lb/hr
4/30-5/1/02; 1-4, 5, 9, 202; 39 tons of dry coal per oven	Emergency Vent Stack B-1			8.65 lbs/hr

The table above shows stack emission testing results for various process units of interest at the IHCC facility. Copies of this original stack test evaluations/reports are available from Commentors on request.

These data show that condensable particulate matter constitute the majority of the PM release from combustion-related emission sources at this nonrecovery coke oven, sometimes by an overwhelming

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

majority. In particular note the 12/2/99 PM testing results on the main combustion stack showing that condensible particulate matter constitutes 89% of the total PM emissions and the C and D charging emission stack showing condensible PM at 91% of the total.

*Response: The draft and final PTI require that compliance testing for  $PM_{10}$  emissions to include an analysis of condensible particulate emissions using Methods 201 and 202. We see no benefit in requiring the applicant to measure condensible particulate emissions (PE), since there are no current regulations applicable to this process that are based on the inclusion of condensible particulate emissions, and there are no National Ambient Air Quality Standards for particulate emissions. PE is defined to include only the front half of the Method 5 sampling train. The Method 202 test is specifically used for determining condensible  $PM_{10}$  emissions and is required to be used in the draft and final permit to install.*

### Comment #110

The Applicant's and Ohio EPA's use of AP-42 uncontrolled emission factors for mercury emissions is not a responsible approach to mercury emissions estimation as uncontrolled potential for mercury emissions could be higher than what has previously been discussed.

Both the Applicant and Ohio EPA have relied on AP-42 uncontrolled emission factors for mercury emissions estimation purposes. Commenters assert this is not a responsible approach since the AP-42 factor in this case depends on results from a single facility and its use of coal from a different coal marketing region.

The Applicant should be required to live within a maximum mercury limit in coal that it intends to use. There is no reason why such a method for limiting mercury emissions should not be employed in the present case. The Applicant should be required to submit analysis information on coal it intends to use for purposes of mercury control issues, including mercury, chlorine, sulfur and other toxicant contents. Ohio EPA has failed to require such a fundamental part of a complete application.

Based on an average of 19 lbs mercury per  $1E+12$  BTU heat value for Northern Appalachian (Ohio) coal at  $11.5E+03$  BTU per pound and  $1.9E+06$  dry tons of coal per year for the FDS coke oven, the total mercury process input could be as high as 870 lbs of mercury per year.

*Response: See response to Comment # 3.*

### Comment #111

The proposed activated carbon injection system study cannot generate valid and reliable results and BACT determination for mercury without requiring significant additional study elements on mercury process inputs.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

No study on the matter of activated carbon injection efficacy can be reliable without generating simultaneous controlled and uncontrolled emission results as well as testing of the mercury content of coal while the test is underway. Nothing in the permit provides for this kind of detailed study. The Applicant should not be permitted to reduce activated carbon injection rates below those demonstrated to comply with both the short term and the annual mercury emission limitations in the proposed permit.

*Response: The draft PTI requires testing the uncontrolled and controlled emission rates and an analyses of the mercury content of the coal blend being used. Clarifying language will be added to the final PTI requiring that inlet and outlet testing is to be conducted simultaneously, and will require that a coal sample be taken for each mercury test run.*

Comment #112

Ohio EPA has eliminated many compliance testing requirements from the permit compared to what was previously required.

Ohio EPA has removed the following compliance testing requirements from the permit as compared to the previous versions:

Main Stack	Charging Stack	Pushing Stack	Bypass Stacks
Hazardous air pollutants, other than mercury, dioxins, furans, metals and acid gases; continuous opacity monitoring	Total particulate emissions, sulfur dioxide, nitrogen dioxide, carbon monoxide, volatile organic compounds, lead, hazardous air pollutants	Total particulate emissions, sulfur dioxide, nitrogen dioxide, carbon monoxide, volatile organic compounds, lead, hazardous air pollutants	Dioxins, furans, acid gases

While there are some countervailing aspects of additional testing requirements that have been added, both Ohio EPA and area citizens will know less about emissions from the proposed facility with the envisioned compliance test requirements than with some of the previous versions of the permit.

*Response: We are requiring a significant amount of stack testing to be performed on the proposed facility. In an effort to gain information that we feel will result in the most useful data without adding an excessive cost to the applicant, we have adjusted the testing requirements.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #113

All uncontrolled venting should be reported, not just exceedances of venting usage limitations.

Condition EUB901-III.A.IV.10 presently requires only “exceedances of the HRSG bypass vent stack usage limitations” to be reported. This provision should be amended to require detailed reporting of the vent number, date, start time and end time and cause of all uncontrolled venting from the facility. This is particularly important in light of the probable effect of venting incidents on increasing fugitive charging and pushing emissions from the proposed facility. Nothing in the permit or the application addresses the matter of required vent damper seals and ensuring that such seals do not leak and are checked for such leaks. The permit should require that all vent damper opening activation be telemetered to both operators, alarms and a data logging system. This facility should not be permitted to operate without clear knowledge when venting is occurring.

*Response: The term and condition A.III. 9 under emission unit B901 contained in the draft permit requires FDS to record and maintain daily records for each bypass vent stack the time periods when there is any flow through the bypass vent stack. We will be able to review this information upon request.*

Comment #114

The permit eviscerates effective compliance testing and compliance assurances on total hazardous air pollutant emission limitations.

Under numerous changes in the permit in the emission limitation, compliance method and testing sections for emission unit B901, all of the emission limitation compliance provisions for hazardous air pollutants have been turned into meaningless, ineffective paper compliance exercises unsupported by any actual compliance testing at the facility. These ineffective provisions feature reliance on AP-42 hazardous air pollutant emissions information instead of actual compliance stack testing requirements for hazardous air pollutants.

*Response: See response to Comment #s 3, 105, 106, 107, 108 , and 112.*

Comment #115

Overall compliance assurance monitoring aspects of the proposed permit don't meet Title V operating permit compliance verification standards.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

The permit as proposed does not meet Title V standard for compliance assurance monitoring and enforceability. Because of deterioration aspects of coke oven operation, the permit should be amended to require an annual suite of stack tests for all specified vent/stack compliance stack testing requirements. Each emission limitation and compliance monitoring requirement in the permit should be rewritten to incorporate either continuous emission monitoring, continuous opacity monitoring, continuous parameter monitoring for controlled sources and periodic Method 9 determinations when no continuous opacity monitor or parameter monitor is available for visible emission limitations.

All of the provisions that are written to measure compliance either by reference to an AP-42 emission factor or a source specified emission factor do not meet Title V monitoring and enforceability standards. Each compliance measurement should be obtainable by public records request from Ohio EPA or the Toledo air agency in order to allow enforcement of the permit by third parties.

*Response: The PTI contains extensive monitoring and recordkeeping requirements that are appropriate for a PTI. The applicant will be required to apply for a Title V permit within one year after startup. If we determine that additional monitoring is required by the Title V operating permit program, it will be added at that time. Ohio EPA has an installation permit program and an operating permit program. The installation permit program requires initial stack testing requirements. If the applicant installs and operates this source, the Title V operating permit will specify future testing requirements based on the results of the initial test results.*

### Comment #116

The proposed permit should be amended to require all VOC compliance determinations to be made using EPA Method 18.

As presently written, the proposed permit allows selection “as appropriate” between EPA Methods 18, 25 and 25A for stack compliance determinations on volatile organic compounds.

EPA Methods 25 and 25A measure volatile organic compounds “as carbon” or “as propane.” Because of the measurement technique, Method 25 and 25A will show lower total volatile organic compound determinations than Method 18. Method 25 and 25A will not provide an indication of the mass contribution of oxygenated and chlorinated volatile organic compounds in the total VOC emissions measured by these method.

Emissions from the main and bypass stacks can be expected to contain many chemical compounds that are oxygenated and chlorinated and EPA Method 18 (or modified Method 18) is required to reflect the contributions of these substances to total VOC emissions. The Applicant should not be able to select a VOC compliance testing method that will be easier to meet merely because it doesn’t provide an accurate measure of total volatile organic compounds.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: Ohio EPA will approve appropriate test method to comply with VOC emission limitations contained in the final permit at the time of stack test.*

### Comment #117

All permit references to testing requirements for “dioxins” and “furans” should be changed to better form.

The proposed permit discusses testing requirements for “dioxins” and “furans” however these descriptors are not precise and chemically inaccurate. The correct terminology should be testing for poly-chlorinated dibenzo-dioxins (PCDD) and polychlorinated dibenzo-furans (PCDF).

The permit should be amended to require reporting on PCDD and PCDF to include a listing of speciated PCDD/PCDF congeners and emissions in 2,3,7,8-tetra-chlorodibenzo(p)dioxin toxic equivalents.

*Response: Ohio EPA is expecting insignificant emissions of Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans from nonrecovery coke oven batteries.*

*Further, there is little information available regarding total hazardous air pollutant emissions from nonrecovery coke oven batteries. The best available emission information currently available for nonrecovery coke oven emissions is the current U.S. EPA draft AP-42 section for coke ovens, and these two pollutants are not listed in the draft section of AP-42. For this reason, we are requiring the applicant to perform emission testing for Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans from the proposed installation after startup to quantify the emissions. We will review the test results and determine if the pollutants comply with Ohio EPA's air toxics policy.*

*The draft report did specify the specific test method (Method 23) for the applicant to use in Section III.A.V.2.f of the terms for B901. Method 23 is used to determine Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans. Emissions of these pollutants are required to be reported in pounds per hour and pounds per dry standard cubic feet.*

### Comment #118

Monitoring “uncontrolled emissions to the main stack” isn’t an appropriate substitute or surrogate for monitoring uncontrolled emissions from venting emission points.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

The permit has been amended to remove all compliance monitoring and testing requirements for emissions from uncontrolled venting stacks at the proposed coke oven except for venting volumetric flow rates. Instead, the permit attempts to have a savings grace as to the venting emission consequences by measuring “uncontrolled emissions to the main stack.” No temperature monitoring is provided while gaining the venting flow rate information.

Aside from the vagueness of what “uncontrolled emissions to the main stack” means, this abandonment of stack monitoring of uncontrolled venting points cannot be ameliorated merely by testing uncontrolled emissions upstream from main stack emission control points.

First, it is highly unlikely that testing of the uncontrolled main emission control train upstream from any emission control devices is isokinetically equivalent to testing a vent stack during venting conditions. There will be significant temperature differences between such measurements and venting conditions will be reflective of greater than atmospheric pressure conditions in coke oven batteries. This type of condition will not occur with conventional main emission control system evaluation of waste gases through action of induced draft fans. More significantly, the differential in temperature conditions means that measurements of emissions in the main stack exhaust gas train will not be directly relative and analogous for surrogate purposes to venting related emissions. When temperature conditions are dramatically different, such differentials will account for different physical-chemical aspects of pollutants whose disposition will display some temperature dependence. Condensable particulate matter, water soluble acid gases, PCDD/PCDF, mercury and volatile organic compounds will all have temperature sensitive features and dispositions.

*Response: When we revised testing on the bypass stacks, we were aware that there would likely be some variation of the emissions as measured prior to the lime sprayer absorber versus from the bypass vent stacks. One of the reasons that we made this revision was to add a requirement for the permittee to perform inlet and outlet mercury emissions testing using ASTM Method D6784-02, also known as the Ontario Hydro Method. We believe that the expense of performing testing for all pollutants from stacks that are restricted to limited use would be overly burdensome to what we require in other major installation permits.*

### Comment #119

The permit should be amended to require that all Method 5 Compliance Stack Determinations incorporate the “back-half” particulate matter catch.

The experience of the Indiana Harbor Coke Oven facility showed that all of the main sources at that site have a larger proportion of total particulate matter as condensable particulate than filterable particulate. The proposed permit for the Oregon facility should be clearly amended to require that

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

all EPA Method 5 compliance stack tests be required to consider and add the “back half” catch of condensibles into the total reporting particulate emissions for compliance purposes.

*Response: See response to Comment # 109.*

### Comment #120

Continuous visible emissions monitoring for the main combustion stack should be restored to the permit. Commenters urge that a continuous visible emissions monitoring system be restored as a requirement in the proposed permit for the main combustion stack.

*Response: The draft and final permit contain a requirement for the permittee to install a bag leak detection system on the main stack baghouse. We believe that this system will be sufficient to allow for the equipment to be maintained to minimize visible emissions. Should visible emissions become a problem, Section III.A.III.7 of the terms for B901 specifies that we may require the installation of a continuous opacity monitor in the future. Since U.S. EPA requires continuous opacity monitors on recovery coke ovens, but on nonrecovery coke ovens in 40 CFR Part 63, Subpart CCCCC, U.S. EPA has recognized that visible emissions from coke oven battery stacks are generally not a problem.*

### Comment #121

Capture efficiency provisions of the proposed permit should be restored and new requirements for parameter monitoring to support capture efficiency compliance assurance should be added.

The latest proposed permit eliminated a requirement to demonstrate 90% capture efficiency for hooding to control pushing emissions. This requirement should be restored since it is integral for controlling pushing fugitive emissions, particularly in light of the reduced capture system flow rates envisioned in the application. A similar requirement should be added for charging emissions and related hooding. During a demonstration of achieving such capture efficiencies, parameter monitoring for capture system flow rates should be added, including a requirement for flow measuring device accuracy determinations, flow device uptime and related quarterly reporting of exception periods and flow monitoring downtime.

The permit requires measurement of common tunnel negative pressure, but the monitoring need only be done once per day. Maintenance of negative pressure is a parameter that should be monitored continuously and the once a day requirement for monitoring is insufficient to ensure adequate fugitive emission control during charging and pushing operations. The permit should be amended to require continuous negative pressure common tunnel monitoring for each process grouping of coke ovens associated with a heat recovery steam generator. Such monitoring should be datalogged

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

and reported for the date, start time, end time and cause of any exception periods when below atmospheric pressure was not maintained in any common tunnel at the site.

*Response: We realized that determining the capture efficiency for pushing and charging operations would be very difficult and dangerous to perform to obtain reliable results. A temporary structure would have to be built around the coal-side and coke-side oven doors. The structure would have to be designed to contain all emissions, yet still allow for the coal to be charged into the oven and allow for coke to be pushed from the oven. The structure could not be made of wood, due to the high oven temperatures and high coke temperatures that is pushed from the ovens. For this reason, it was removed from the permit. The draft and final permit contain a requirement for the applicant to perform stack testing on the charging and pushing stack emissions. The draft and final permit also require visible emissions readings of fugitive charging and pushing particulate emissions to be performed concurrent with the associated charging and pushing stack test.*

Comment #122

The proposed permit contains no particulate emissions compliance stack testing for quench emissions -- the largest single source of PM emissions at the site.

There are no realistic, effective and meaningful compliance stack testing requirements for particulate emissions determination from the coke quenching towers. At least one stack test should be conducted to determine actual emissions and to verify compliance with the stated emission limitations.

*Response: U.S. EPA has developed a method for estimating particulate emissions from quench towers based on the dissolved solids content of the quench water. The applicant is required to monitor the solids content of the quench water and maintain the solids content of quench water to less than 1,100 mg/liter.*

*Another means of limiting particulate emissions is the design of the quench tower baffles. The applicant is required to design the quench towers in a manner such that no more than five percent of the cross sectional area of the tower may be uncovered or open to the sky. The permittee is also required to perform daily washing of the baffles. The applicant is also required to inspect the quench tower monthly and repairing missing or damaged baffles.*

Comment #123

Review of the proposed industrial process and emission control reliability issues and the Indiana Harbor Coke Co experience.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Commentors have had long conferences with a U.S. EPA air enforcement official and an Indiana Department of Environmental Management inspector<sup>12</sup> concerning compliance, operational and design problems that have taken place at the Indiana Harbor Coke Co (IHCC) facility in East Chicago, IN. This facility was heavily promoted in the mid-1990s in a similar manner as the FDS Coking facility is presently being promoted with many of the same claims being made at the time for the Indiana facility. However, the experience at the Indiana facility and the passage of time is that many claims made have not been supported by the actual experience of operations and problems at this facility. IHCC has been subject to both state and federal air enforcement in association with such claims and the facility has sought relaxations of its permit after issuance because of some of the problems. These are detailed in this section below.

### **Green Pushes**

A green push is an operation of removing coke from an oven when not all of the coal has not been sufficiently heated and carbonized so that volatiles are still present in the pushed coke. Although the Applicant in the present case says that green pushes are eliminated, the experience at IHCC is that not all green pushes are eliminated. Green pushes still occur when there hasn't been sufficient coking time, when the volatility of the coal is unexpectedly high and in regions of the oven such as the edges where heating is not as great or as uniform. The Applicant has characterized VOC Emissions as though there will be no green pushes. Nothing in the proposed permit requires the Applicant to monitor and record green pushes. Since green pushes are a source for VOCs to enter quench water and be re-emitted, failure to consider that green pushes may actually occur will contribute to emission characterization underestimates.

### **Charging Emissions**

IHCC still apparently has problems with charging emissions during the last part of the charging cycle when coal comes into contact with hot oven surfaces. During these times, particularly during elevated wind conditions, charging causes excessive particulate emissions that lead to opacity excursions. The Applicant's claims for face velocity on charging hood gas collection don't account for these types of problems.

### **Venting Emissions**

IHCC has admitted that design and operation mistakes significantly contributed to excessive uncontrolled venting from coke oven emergency vent stacks at the East Chicago facility. While some of these problems have been corrected, measures to correct the balance of the problems are being denied as technically feasible given the claim that coke ovens cannot be brought down to cold shutdown and turnaround absent a complete rebuilding and reconstruction. At IHCC, the combined backpressure influence of the emission control train, the problem of deposits on heat recovery steam generator heat transfer surfaces and the additional backpressure caused by such deposits, plus the under sizing of the exhaust discharge tunnel and induced draft fan capability, plus the demands for higher volatility coal to maintain adequate elevated temperatures for steam production have all lead

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

to significantly more uncontrolled venting than was planned during the facility permitting. IHCC has sought permit revision for venting up to 19% of the time on a 24 hour basis and 14% of the time on an annual basis. Although unanticipated venting has been a problem at IHCC, it appears that the Applicant and the proposed permit are seeking permission to vent for longer period of time (up to 2016 hours per year) than even what was experienced at IHCC. In addition, the FDS facility will exacerbate its venting problems with its design of using a lesser number of heat recovery steam generators in a manner that, when venting occurs, more ovens will be implicated in such venting. If IHCC can limit the number of ovens subject to venting involvements, then the Applicant should also be able to alter their design in such a manner as well as part of BACT review and consideration on venting emissions.

Finally, the Applicant must be required and the permit should be amended to require that all vent openings be instrumented to the operator. Vent openings will be system pressure mediated in addition to being caused by direct operator intervention. The Applicant must show that both types of vent openings will be fully known to operators and that such vent openings, even if they are partial openings caused by system pressures, will be recorded and limited as per any requirements in the proposed permit.

Coke oven door leaks and taking advantage of the MACT Rule to evade accountability for door leaks.

IDEM inspector observations indicate that door leaks are still a problem at the IHCC nonrecovery coke ovens. The leaks tend to occur at the bottoms of the doors in locations where the charged coal bed contacts the bottoms of such doors. The proposed permit for the FDS facility doesn't effectively regulate door leaks. The existing MACT rule allow the option of recording a negative pressure in the oven once a day to substitute for inspections and accountability on door leaks. The FDS application emission characterization assumes zero VOC, PM and HAP emission from door leaks, so such a projection is unduly optimistic in light of the IHCC experience. The emission limitation and compliance requirements of the proposed permit do not provide any door leak emission limitation, prohibition, inspection/monitoring or record keeping requirements. The proposed permit should not be issued with provisions that allow the operator to rely only once a day negative pressure monitoring as a substitute for substantive door leak limitations, monitoring and record keeping requirements, as well as emission inventory reporting.

*Response:*

*Green Pushes*

*Green pushes occur when coke is pushed from the oven prematurely, prior to completion of the coking process. Green pushes are generally caused by operator error. Excessive emissions resulting from operator error or process problems are not considered in setting allowable emission limitations. While we recognize that it is possible that there could be green pushes, the work practice standards required in the draft and final permit under 40 CFR Part 63, Subpart CCCCC*

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*are designed to minimize the occurrence of green pushes by requiring the each oven to be visually checked prior to pushing to ensure that the coke is not green and is ready to be pushed.*

### *Charging Emissions*

*The charging system design of the FDS Coke Plant is significantly different than the Indiana Harbor Coke Company Charging system design. The FDS Coke Plant will be charging a stamped coal cake into the ovens. The Indiana Harbor Coke Plant charges loose coal into the coke ovens. We expect that emissions from the stamped coal technology should result in lower emissions than the technology in use at Indiana Harbor. This type of charging technology along with the charging hood and baghouse represent Best Available Control Technology.*

### *Venting Emissions*

*The commentor indicates that the FDS Coke Company is requesting permission to vent up to 2,016 hours per year. The draft and final air permit allow for eight days of venting per heat recovery steam generator bypass vent stack. If built, the FDS Coke plant will utilize six heat recovery steam generator bypass vent stacks. This allows for a total of 48 days per year of venting (13.2% per year), however, during these 48 days only one vent stack is allowed to be in use at any time resulting in only 1/6 of the total coke oven battery emissions being vented to a bypass vent stack which is the same as eight days of venting of the total coke oven battery emissions. This results in bypass venting of the total coke oven battery emissions of 2.2% per year.*

### *Door leaks*

*We believe that the draft and final permit provide appropriate assurance that emissions from door leaks will be minimized. U.S. EPA recently published final Residual Risk standards for door leaks from coke oven batteries. This rule requires that door leaks be stopped within 15 minutes after a charge and allows for no more leaks from that oven door during the coking cycle. The rule also allows for up to two door leak events of up to 45 minutes after charge per battery during a six-month period.*

*We are not aware of any emission factors available for door leaks from nonrecovery coke ovens. Leaks from nonrecovery coke ovens complying with the new oven door leak standards under 40 CFR Part 63, subpart L are not expected to result in significant emissions. The FDS Coke Plant will be required to comply with the new door leak standards under 40 CFR Part 63, subpart L upon startup. The new oven door leak requirements go into effect for the Indiana Harbor Coke Plant July 14, 2005. The door leak emission factors contained in the draft AP-42 section for coke oven batteries are for recovery coke ovens, and oven door leaks from nonrecovery ovens are expected to be significantly lower than for recovery coke ovens.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #124

Questionable Claims of Process Hydrocarbon Burnout

The Applicant has submitted no detailed technical schematic diagrams of the common, refractory lined gas collection tunnel of the proposed facility. Yet, the Applicant has previously made claims of 7 seconds of gas retention at elevated temperatures, 10 ppm VOC emission levels and other aspects of ideal hydrocarbon burnout. Commenters assert that these claims must be supported by additional technical information disclosure before they are accepted by Ohio EPA with issuance of a proposed permit and before the Applicant is granted a permit containing no continuous hydrocarbon monitoring. The evidence from the Indiana Harbor facility that condensable particulate emissions are elevated in comparison to the Jewel Coke experience is an indicator that such hydrocarbon burnout may not be as good as the Applicant is claiming. In particular, it is difficult to accept Applicant's claim of 7 second retention time claims when some oven ducts to the common tunnel are directly adjacent to either venting discharge locations or ductwork to heat recovery steam generators. Ovens in these near discharge locations cannot possibly have the significant retention times from their duct input to the common tunnel as more distant ovens further away from venting locations or where ducting to the heat recovery steam generators is very close. Charging operations in the ovens close to venting locations/HRSG duct may have significant potential to cause elevated VOCs and organic compound HAPs discharges on a transient basis out of emergency vents and the main stacks. Such transient VOCs may have the potential to cause downwind odors and excessive VOC emissions.

The Applicant must be required to submit detailed drawings which will ensure that claims about temperature and retention times are true for all oven locations on the common, refractory lined discharge tunnel.

*Response:* Ohio EPA does not do a detailed engineering review of the design of air pollution sources. Instead, we rely on extensive emission testing to verify that the sources can meet the emission limits.

Comment #125

Commentor objected to not being informed prior to the public hearing and only finding out about information when they get to the hearing.

*Response:* A public notice was published regarding the draft administrative modification 30 days in advance of the public hearing. The notice indicated where additional information about the application could be viewed. A notice indicated that there was public information available for review at both the Oregon Branch of the Toledo-Lucas County Public Library and at the Toledo Division of Environmental Services.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #126

The Toledo area has gone from sixth to fourth in recent years in the national ranks of asthma and allergies for the health of the people here. The coke plant's emissions will add to the area's allergies and asthma, that's a certainty.

*Response: See response to Comment #18.*

Comment #127

There was a comment about noise from the proposed facility.

*Response: Under Ohio's rules and laws, this cannot be considered in Ohio EPA's air permit review process.*

Comment #128

Commentor indicated that one section of the permit allows for eight days of venting per vent per year while another section of the permit allows for 192 hours of venting per stack per month.

*Response: Commentor is referring to term III.A.II.10 which states that the maximum cumulative hours of operation of each HRSG bypass vent stack levels specified in the table.*

*Also see response to Comment # 123 related to venting emissions.*

Comment #129

Commentor requests that a requirement be added to test the waters and sediments of Duck & Otter Creeks and Maumee Bay.

*Response: Ohio EPA does not have authority to require this testing as part of the air permit review process.*

Comment #130

Commentor indicates that the 2004 coke plant operational footprint included 400 acres of facility. There were 150 acres applied for in the coke plant permit, and the rest for CSX operations. The footprint of this coke plant has now been reduced to 51 acres for the coke plant and CSX has applied for a permit for handling coke and coal outside of the coke permit. All of this should be considered one.

*Response: See response to Comment #101.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #131

Documents show that cleanup is needed before construction. What is Ohio EPA doing to insure that a proper cleanup is conducted before construction and how is Ohio EPA insuring that the VAP requirements and brownfield requirements are met?

*Response: This is outside of the scope of the air permit review process. Please contact, Ohio EPA, Northwest District Office, Division of Emergency and Remedial Response at (419)352-8461.*

Comment #132

FDS has not applied for NPDES permits. The facility will have runoff and depositional impacts on the creeks. FDS has permit applications in areas where there are identified wetlands. There should be a permit application to identify the wetlands, and the air permit should state that it is not the only permit that may be required.

The air permit should state that this is not the only permit that may be required and that Clean Water Act regulations and standards addressed through various permits should also be required.

*Response: Information supplied by the applicant indicates that the FDS Coke plant will be a net user of water. That means they do not plan on having any discharge of wastewater into the waters of the state.*

*In order to construct at this site, FDS Coke must meet any regulations concerning wetlands and may need permits to meet those regulations. This permit only covers the air pollution requirements.*

Comment #133

Commentor requests that the coke plant be located outside of the basin of the Lake Erie watershed.

*Response: We do not have authority to dictate the location of where a facility is constructed.*

Comment #134

Does this permit to install qualify under the Interstate Air Quality Rule? States within eight hours of the pollutants have not been heard to the best of my knowledge, and I believe it's a requirement of the rule.

*Response: Per Clean Air Interstate Rule (CAIR), this PTI would not be subject to the provisions of CAIR requirements.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #135

What was the response of Canada and Michigan to the pollutants this polluting coke plant will emit?

*Response: During the public comment period, we participated in a conference call with Canada and Michigan regarding the coke plant to answer questions that they had. Neither Canada nor Michigan submitted public comments during the comment period.*

Comment #136

Does the permit to install indicate the polluting coke plant will emit more toxic chemicals than the old Toledo coke plant in East Toledo? This plant will emit more toxins than the East Toledo plant.

*Response: It is difficult to compare the old Toledo Coke Plant with the proposed FDS Coke plant because (1) the Toledo Coke Plant used older technology that resulted in more emissions per ton of coke produced (including toxics), and (2) the FDS Coke plant is a much larger plant than the old Toledo Coke Plant. The FDS Coke plant 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 for some pollutants the emissions will be higher for the proposed new coke plant vs the old coke plant, due to the proposed new coke plant having a much higher capacity than the old coke plant.*

Comment #137

What is the best technology? The technology we're getting today or the technology a year ago? Could it be that the reason we're getting different technology is there's different owners?

*Response: Best available technology (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 of Environmental Protection to operate satisfactorily in this state or other states with similar air quality on substantially similar air pollution sources.*

*Our current review of the PTI application indicates that the BACT information is still adequate in today's standards.*

Comment #138

How much mercury and other pollutants are actually vented at other coke plants?

*Response: See response to Comment # 3.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #139

Will the unregulated emissions allowed for eight days for each of the six stacks at least be monitored?

*Response: The draft and final permit require the applicant to measure the flow rate through the heat recovery steam generator bypass vent stacks. The applicant will also be required to test for the emission rate in locations prior to the air pollution controls located downstream from the heat recovery steam generators and after the air pollution controls located downstream from the heat recovery steam generators. Emissions from the bypass vent stacks will be estimated based on the flow rate measured at the bypass vent stacks and the concentration of emissions measured prior to the air pollution controls located downstream from the heat recovery steam generators. Ongoing monitoring of emissions from the bypass vent stacks will consist of the applicant maintaining records of all periods that emissions were routed to the bypass vent stacks. There will be no continuous emissions monitors installed on the bypass vent stacks.*

Comment #140

What are the current levels of mercury in the ambient air?

*Response: Ohio EPA does not currently monitor for ambient concentrations of mercury in Lucas County because we have data that indicates that these pollutants are not likely to be found in the ambient air of Lucas County in significant quantities.*

*Ohio EPA is not currently monitoring the ambient air for mercury in Lucas County. Mercury has not historically been measured because significant ambient concentrations were not expected. Recently we have been operating a new monitor that is designed to specifically detect ambient mercury. The sampling conducted so far has been done in the Columbus area near known sources of mercury (an automobile shredder and a power plant). This sampling has not yet detected ambient concentrations above the detection limits of the sampling equipment. We expect ambient concentrations of mercury to be similar in other parts of the State.*

Comment #141

Even with the TOSC report, what is being done at Envirosafe to stop the toxic leaking and clean up that environment? What have these toxic wastes caused for health terms for area residents?

*Response: This comment is outside the scope of the air permit review process. For questions regarding Envirosafe, please contact Ohio EPA, Public Interest Center at (614) 644-2160.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #142

I think that there shouldn't be venting that's unmonitored.

*Response: The air permit requires that the total number of hours be recorded for each period that a vent stack is in use. The air permit limits the restricts allowable venting periods to eight days per year per vent stack. Air quality monitoring was performed based on the allowance of eight days of uncontrolled venting per each of the six vent stacks. The air quality modeling indicates that the emissions are in compliance with National Ambient Air Quality Standards and Ohio EPA's Air Toxics Policy. The venting emission rate will be estimated initially as described under the response to Comment #139.*

Comment #143

The company should be registered in Ohio.

*Response: Although this comment is outside the scope of this air permit, we are aware that FDS Coke has registered with the Ohio Secretary of State under the name of FDS Coke Holdings, L.L.C.*

Comment #144

There should be a required setback of at least 100' from both Duck and Otter Creeks for the coke permit and a coastal setback of 300' for coastal areas.

*Response: We do not have authority to dictate the location of where a facility is constructed.*

Comment #145

Part I. A.10.b. Permit to Operate Application

Part I.A.10.b of the existing Federal and State Enforceable section PTI boilerplate language in the draft FDS Coke Plant PTI modification specifies that “permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations and policies.” We object to the inclusion of compliance with “policies” as a “requirement” to obtain a permit to operate.

References to policies within the boilerplate language “as a requirement” are in direct contradiction of Ohio Revised Code (ORC) 3745.31.05. We believe that the Ohio General Assembly has made it clear to Ohio EPA that regulation by policy is prohibited. We request that the term “policies be removed from this section and all other sections contained within the PTI where policies are referenced as a “requirement.”

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

*Response: Ohio EPA will consider your comment in the future when we will revise our boilerplate language for General Terms and Conditions. At this point, no change will be made.*

Comment #146

Part I. B. 2.b. Quarterly Deviation Reporting Requirements

We request that language excluding from quarterly reporting any deviations “resulting from malfunctions reported in accordance with OAC Rule 3745-15-06 that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit” also be included in the boilerplate language associated with the “State Only Enforceable” requirements discussion in Part I.B.2.b.

Part I.A.1.c.ii of the existing Federal and State Enforceable section PTI boilerplate language in the draft FDS Coke Plant PTI modification specifies that the submission to Ohio EPA of quarterly written reports of deviations from federally enforceable emission limitations, operational restrictions, and control devices operating parameter limitations but includes the language, “excluding deviations resulting from malfunctions reported in accordance with OAC Rule 3745-15-06 that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit.” However, this language has not been used in State Only Enforceable section Part I.B.2.b Quarterly Reporting Requirements.

Therefore, the reporting requirement in the State-Only Enforceable section is more stringent than the existing federal and State of Ohio regulations. As a result, the boilerplate language would result in the imposition of additional regulatory requirements on the FDS Coke Plant without formal rulemaking and would be a violation of the administrative process. The boilerplate language within the PTI would also be internally inconsistent.

*Response: See response to Comment # 145.*

Comment #147

Part I.B.5. Construction of New Sources(s)

We object to the inclusion of the boilerplate language within the Part I.B.5. State Only Enforceable section that states:

“the proposed emission unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without express, written approval of the Agency. Any deviation from the

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law.”

Ohio EPA’s air permitting program does not specify the engineering design or equipment for proposed new or modified air contaminant sources. The State of Ohio air permit rules and regulations specifically provide for the use of performance-based emission limitations and controls for permittees to meet. For example, Ohio EPA Best Available Technology (BAT) provisions establish air pollutant emission reductions consistent with a wide range of potential engineering and equipment specifications. A permitted facility may describe the use of a combination of control measures to meet BAT in a PTI application. However, the facility will comply with Ohio EPA air emission rules and regulations as long as BAT is met regardless of the combination of control measures used.

Requiring the level of plan approval for the construction of an air emission source consistent with the boilerplate language in Part I.B.5. has never been a historical practice of the air program. Ohio EPA appears to have potentially adapted water program provisions in ORC §6111.44 into the PTI General Terms boilerplate language without the required rulemaking process. If unchanged and taken literally, inclusion of the new source construction boilerplate language in the FDS Coke Plant PTI modification could result in construction of the FDS Coke plant being significantly delayed with unnecessary and unreasonable additional Ohio EPA approvals.

The cost of construction of the FDS Coke Plant will be significant and is estimated to require 18 to 24 months to complete. The size and complexity of a construction project of this magnitude could clearly result in or require minor deviations from a “strict accordance” standard when applied to the detailed information included with or incorporated as part of the PTI Modification application. For example, to accommodate construction issues, selected emission units could require being moved a limited number of feet from the specific geographical coordinates used in the PSD ambient air impact analysis. However, there clearly is no expectation that adverse air quality impacts will result from these minor types of deviations in layout.

Unfortunately, under the literal interpretation of the boilerplate language contained in Part I.B.5., these minor types of changes would appear to require Ohio EPA’s prior written approval. We believe obtaining these types of written approvals is clearly unreasonable and inconsistent with performance-based air permit rules and regulations. Therefore, LMG requests that Ohio EPA replace the existing boilerplate language with the following alternative language:

This permit is based on information submitted to or requested by the Director of the Ohio Environmental Protection Agency. Any physical change in construction or method of operation of the emission units included within this permit from the information on which this permit was based could trigger the Permittee to be subject to additional applicable requirements, obtain additional permits, or seek a modification of this permit pursuant to Ohio rules and regulations.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

This change in boilerplate language eliminates the potential compliance issue of obtaining prior written approval for minor deviations from “construction in strict accordance with the plans and applications submitted” for the FDS Coke Plant while ensuring that the Permittee is clearly responsible to ensure that minor changes are not implemented without internal review and approval. To ensure that this internal process could be evaluated by Ohio EPA, LMG agrees that Ohio EPA could also insert a requirement for the Permittee to maintain internal records documenting any changes.

*Response: See response to Comment # 145.*

Comment #148

B901 Part III. A.I.1: Increase Hourly Emission Limitations for Main Stack Pollutants

We are requesting a 5% increase in the hourly emission limitations for all criteria air pollutants, with the exception of lead, emitted from the Main Stack and By-Pass Vents Part III.A.I.1. For example, we are requesting that the hourly SO<sub>2</sub> emission limit be increased from 243 lbs per hour to 255.2 lbs per hour. This request is to address the technical determination that waste gas flux will occur at Emission Unit B901. Uhde Corporation of America estimates that a waste gas flux of as much as 5% within any 1 hour time period can still be expected with the nonrecovery coking process that charges and pushes 24-hours a day.

A waste gas flux of 20% was previously incorporated in the hourly emission limitations in the Final PTI for the FDS Coke Plant issued on June 14, 2004. This 20% flux factor was based on charging and pushing operations for the battery being conducted during just 16 hours of a 24-hour day. Ohio EPA based the current hourly emission limitations in the draft FDS Coke Plant PTI Modification on the maximum average hourly emission rate for the respective air pollutants that does not incorporate any waste gas flux.

We understand that compliance with the hourly emission limitation for the Main Stack will be based on three separate 1-hour tests that would then be averaged. However, these “averaged” 1-hour tests will not eliminate the unduly restrictive nature of the current draft Main Stack and By-Pass Vent hourly emission limitations.

To comply with the use of maximum average emission rates as the maximum hourly emission limitations the FDS Coke Plant is expected to be required to operate approximately 2% to 4% below the maximum PTI application design parameters. This is based on an operating requirement to ensure compliance with the lower maximum average hourly emission limitations that do not incorporate waste gas flux during any given 1-hour time period. For example, the SO<sub>2</sub> CEM

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

provisions in Part III.A.III.5.e requires 1-hour averages to be computed from four or more data points equally spaced over each 1-hour time period to demonstrate compliance.

This type of requirement is more restrictive than required by the information included in the PTI application and the results of the ambient air quality analysis. The ambient air quality analysis for the FDS Coke Plant incorporated the use of hourly emission rates for the evaluation of air quality impacts from criteria pollutants that were consistent with USEPA and Ohio EPA guidance and procedures. However, in conducting the modeling for compliance with the 3-hour SO<sub>2</sub> NAAQS we used the maximum “average” hourly emission rate.

To address Ohio EPA concerns regarding an hourly emission rate for SO<sub>2</sub> that might exceed the modeled emission rate during a 3-hour time period we agree to the inclusion in the PTI of a 3-hour SO<sub>2</sub> emission limit of 243 lbs/hour. This 3-hour limit will reflect the max hourly SO<sub>2</sub> modeling input used for 3-hour model run (see comment below). Again, this additional emission limitation will address any Ohio EPA concern that a requested PTI hourly emission limit of 255.2 lbs is not consistent with the 3-hour SO<sub>2</sub> modeling input.

The requested 5% increase in the Main Stack and By-Pass Vent hourly emission limitations for air pollutants will still result in a significant reduction from the hourly emission limitations contained in the final FDS Coke Plant PTI issued on June 14, 2004. For example, the hourly SO<sub>2</sub> and NO<sub>x</sub> emission limitations for the Main Stack will still be reduced from 279.2 to 255.2 lbs per hour and 282 to 258.3 lbs per hour respectively. Therefore, we believe the incorporation of a 5% waste gas flux factor in the hourly emission limitations for the Main Stack and By-Pass Vents is technically appropriate and reasonable.

*Response: We have inserted a new term and condition A.I.2.x under emission unit B901 for the main stack and bypass vent stack pollutants. This would allow for the incorporation of the higher hourly emission limitation to address the limited flux in waste gas pollutant concentrations while ensuring compliance with the emission rate used in the revised modeling conducted for the PTI Modification.*

Comment #149

Part III.A.III.3: SO<sub>2</sub> CEM Operation

We request that a text revision be inserted into Part III.A.III.3 to clearly recognize that the SO<sub>2</sub> CEM will provide data in ppm that is converted to lbs SO<sub>2</sub> per hour based on waste gas flow. To directly “record SO<sub>2</sub> emissions from the main stack in units of pounds of SO<sub>2</sub> per hour” is not possible for a CEM.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

A suggested change for this text would be to add to the SO<sub>2</sub> CEM language something that states the permittee will “continuously monitor and record SO<sub>2</sub> emissions and waste gas flow in order to calculate pounds of SO<sub>2</sub> per hour and tons SO<sub>2</sub> per rolling 12-month period.

*Response: We do not agree that this change is warranted. The continuous monitoring system consists of more than just the emissions analyzer. Term III.A.III.4 for B901 was modified to clarify that "each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers and data processing hardware and software".*

Comment #150

Part III.A.III.4.: SO<sub>2</sub> CEM Startup Certification

We are requesting that Ohio EPA revise the requirement for performance of the certification test for the SO<sub>2</sub> CEM specified in Part III.A.III.4 from “within 60 days” to “ within 90 days from initial startup” of the FDS Coke Plant. This extension is being requested based on the staged startup of the FDS Coke Plant.

Battery A will become operational (i.e., charging of the ovens with coal will begin) approximately 2 months prior to Battery B. This staged startup is necessary based on the construction schedule and design of the batteries. Based on the staged start-up process, Battery B would not be in operation during the SO<sub>2</sub> CEM certification testing if required within 60 days of start-up. Therefore, CEM troubleshooting and the operational performance evaluation would not be based on both batteries operation and full SO<sub>2</sub> loading to the CEM. To allow this to occur before CEM certification we are requested that an extension to 90 days be provided to the FDS Coke Plant.

*Response: Ohio EPA concurs with the applicant and therefore, the above referenced term was modified accordingly.*

Comment #151

Part III.A.III.5.f.: SO<sub>2</sub> CEM QA/QC Plan Submission

We are requesting that Ohio EPA change the requirement for submission of the written quality assurance/quality control (QA/QC) plan for the SO<sub>2</sub> CEM from “within 180 days of the effective date of this permit” to “within 12 months” of the effective date of this permit specified in Part III.A.III.5.f. This request is based on the potential that a SO<sub>2</sub> CEM vendor may not be selected for the FDS Coke Plant within the first 4 to 6 months of issuance of the permit based on the expected 24-month construction schedule. Therefore, the specific QA/QC information from the SO<sub>2</sub> CEM vendor may not be available.

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

We believe an extension to 12 months after permit issuance is reasonable based on the expectation that Ohio EPA would have approximately 12 months to review and comment on any aspects of the QA/QC plan that the FDS Coke Plant might have to modify.

*Response: Ohio EPA concurs with the applicant and therefore, the above referenced term was modified accordingly.*

### Comment #152

#### Part III.A.III.15.A.: Mercury Sorbent Trap Sampling System Replacement

We are requesting that Ohio EPA change the requirement that the “permittee shall replace the sorbent traps in the sorbent trap sampling system every 7 days” to allow for the sorbent trap replacement “every 7 to 14 days” in Part III.A.III.15.a. This request is based on the expected low mercury loading to the sorbent trap and information from sorbent trap vendors.<sup>1</sup>

The mercury sorbent trap sampling system has been packaged for commercial applications as a single monitoring instrument package by a limited number of vendors. One vendor, EPRI Solutions, has developed a package identified as QuickSEM™. QuickSEM™ has been used at more than 24 coal-fired boiler and waste incinerator stack installations and logged over 2,000 operating sample collection hours. However, QuickSEM™, like all other commercial monitoring systems, has yet to be used for any mercury monitoring at nonrecovery coking operations.

Using a sorbent trap sampling system, mercury concentrations are determined on a mass basis (ug/m<sup>3</sup>) from the results of the offsite laboratory analysis of the sorbent traps and then combined with flue gas flow data (m<sup>3</sup>/min) to calculate the “continuous” mass emission rate of total vapor phase mercury. As a result, this method’s provision of “continuous” monitoring is only based on the specification that sorbent traps in the sampling probes are changed-out with replacements when predetermined gas sampling durations have been reached. These sampling durations have been as short as 30 minutes or as long as 10 days at coal-fired utility plants.

Based on the known higher mercury waste gas loading rates associated with coal-fired utility plant’s LMG has confirmed with mercury sorbent trap vendors that the existing large sorbent traps could be expected to be effective for at least 14 days and possibly as long as 20 days before required replacement. Standard offsite laboratory analysis of the sorbent traps requires 14 days to complete. As a result, any mercury emission results obtained using sorbent traps is already a time-delayed compliance monitoring approach. As such, extending the allowable replacement schedule from 7 days to at least 14 days is a reasonable accommodation to reduce the costs associated with the sorbent trap sampling system for mercury monitoring.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Operating costs associated with “continuous” mercury monitoring using a sorbent trap sampling system is directly proportional to the number of sorbent traps used. According to Frontier GeoSciences, large sorbent trap sampling kits that may last at nonrecovery coking operations from 14 to 20 days currently have a unit cost of \$400, including laboratory analysis. Based on this unit cost information and the requirement for a paired system, the annual cost to purchase large sorbent tube kits for a “continuous” mercury emission monitoring with an every 7 day replacement requirement would be \$41,600. In contrast, the annual cost to purchase the same large sorbent tube kits to provide for “continuous” monitoring using a 14 day replacement schedule would be ½ this cost (i.e., \$20,800).

If you incorporate expected labor and other savings, the ability to have sorbent tubes on a 14 day replacement schedule in accordance with vendor specifications will save the FDS Coke Plant more than \$300,000 over the first 10 years of operation without any adverse impact on the quality of the data provided to Ohio EPA. We believe this cost saving will also be achieved with no adverse impact on the usefulness of the mercury monitoring results based on the sorbent tube method already being a time-delayed average approach to monitoring. Therefore, we request Ohio EPA to allow for replacement of the sorbent tubes every 14 days or, as an alternative, provide language within the PTI allowing for the modification of the 7 day replacement schedule by the Director based on vendor information submitted by the permittee.

<sup>1</sup> Telephone conversation by Lance Traves, Managing Principal with LMG with Scott Drennan, EPRI Solutions and Lucas Hawkins with GeoSciences on January 31, 2005.

*Response: Ohio EPA has revised the term Part III.A.III.15.a: Mercury Sorbent Trap Sampling System Replacement to read as follows:*

*“The sorbent traps used in the sorbent trap monitoring system (as defined in 40 CFR Part 72.2) shall be of sufficient size to collect samples for the mercury loading range as specified in Table 324-1 of Method 324. The permittee shall replace the sorbent traps in the sorbent trap sampling system as specified in Table 324-1 of Method 324.”*

Comment #153

B901 Part III.A.V.1: Testing Requirements – Hourly Emission Limits

We request that Ohio EPA revise the hourly emission limits contained in Part III.A.V.1 for air pollutants from Main Stack and By-Pass Vents to be consistent with the requested increased hourly emission limitations that incorporate the 5% waste gas flux factor in Part III.A.I.1.

*Response: See response to Comment # 148.*

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

Comment #154

**PART III: VISIBLE EMISSION LIMITS**

Our comments on Emission Units F001, F002, F003, F004, P001/P002, P003/P004 are limited to a requested increase in allowable visible emissions. These requested visible emission increases are based on a review conducted by LMG of the Ohio EPA Best Available Technology (BAT) database for fugitive emissions sources at coal operations (SIC 1222), steel manufacturing (SIC 3312), and coke manufacturing.

As part of the BAT evaluation, LMG conducted a review of the Ohio EPA PTI databases for 2004 and 2005 to identify similar emission sources. However, we did not include in our review PTIs associated with all types of baghouse stack and fugitive emission sources in the review. We eliminated emission sources such as portable screening units, landfills, and metal processing operations as they were significantly different sources.

LMG identified a subset of 74 PTIs from the universe of Ohio EPA PTIs issued in 2004 and 2005 that included fugitive emission sources (and particulate baghouse sources) potentially similar to FDS Coke Plant emission units for further review. Based on the results of a further review, LMG identified 16 PTIs from the subset of 74 PTIs with fugitive emission sources that would be most likely appropriate for use in the BAT determination for the applicable emission units at the FDS Coke Plant.

A summary of this subset of 16 sources are provided in Table 1 behind Tab 1. However, these fugitive emission sources also included material handling operations associated with grain, gravel, and stone that were not relied upon by LMG in making BAT determinations. This elimination was based on these fugitive emission sources not being appropriate for classification as a “similar source” to the fugitive emission units at the FDS Coke Plant.

As discussed above, LMG also conducted a review of the Ohio EPA BAT database for VE limitations associated with coal, steel, and coke operations. The BAT database report for this review is provided behind Tab 2. However, LMG did not rely on the information contained with the BAT database because the database (1) did not reference specific VE limitations for most fugitive emission sources, the coke manufacturing sources with information were from 2002 or earlier, and (2) the limitations for remaining sources have changed based on LMG’s review of the 2004 and 2005 PTIs.

**BAT Results**

Based on the results of the BAT review, LMG identified that the VE limitations in the draft PTI Modification for the FDS Coke Plant for the fugitive emission sources are (1) not consistent with

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

and (2) materially more stringent than BAT determinations for PTIs recently issued (i.e., 2004 and 2005) by Ohio EPA to similar fugitive emission sources. A summary of the fugitive emission sources and the draft revised PTI VE limitations meeting these criteria are provided in Table 2 behind Tab 1.

On behalf of FDS Coke Plant, LLC, LMG is requesting that Ohio EPA modify the VE limitations for the fugitive emission sources identified in Table 2. The specific VE BAT determinations that FDS Coke Plant, LLC is requesting Ohio EPA to incorporate into the draft revised PTI for the FDS Coke Plant are also provided in Table 2. Table 2 also includes a summary of the PTIs that were used as the basis of the VE BAT determinations.

The requested modifications include an increase in the allowable VE limitation from 1 minute to 3 minutes in any 1 hour for the fully enclosed coal and coke storage operations, coal crushing, coke processing, quench operations, lime storage, and flue gas dust storage. Based on LMG's review, this requested change is consistent with the most stringent VE limitation imposed by Ohio EPA for a fully enclosed fugitive emission source associated with coal or coke-related operations (and other operations) in the recent past.

FDS Coke Plant, LLC is also requesting an increase the VE limitation for fugitives from specific coke battery operations, railcar unloading, and conveying that are not fully enclosed. Again, these requested increases are based on BAT determinations that the draft revised PTI VE limitations are more stringent than those imposed on similar emission sources in 2004 and 2005.

### **PART III: EMISSION UNITSF001**

Our comments on Emission Unit F001 are limited to a requested increase in the time associated with allowable visible emissions from 1 minute to 3 minutes during any 60-minute period specified in Part III.A.I.1. For conformity, this would also result in a change in Part III.A.V.1.a to also specify allowable visible emissions of 3 minutes during any 60-minute period. This requested increase in visible emissions is consistent with Ohio EPA BAT information discussed above. The AP-42 calculations used to estimate PM/PM10 emissions from the paved roads and parking areas also are also based on older conservative emission factors. These emission factors clearly incorporate expected higher allowable visible emissions from paved roadways and parking areas. Therefore, the Ohio EPA clearly will not be increasing actual emissions at the FDS Coke Plant by increasing the allowable visible emissions from 1 minute to 3 minute during any 60-minute period.

It should be noted that the Ohio EPA requirement for no visible emissions with the exception of 1 minute in any hour is still significantly more stringent than required by neighboring states such as Pennsylvania for the same emission source. The recently issued permit for the Cambria Coke Plant included allowable fugitive visible emissions from roads and parking of up to 20% for up to 3

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

minutes in any 60 minutes. Obviously, this difference in regulation creates a competitive disadvantage to the FDS Coke Plant without any tangible benefit to the environment.

### **PART III: EMISSION UNIT F002**

Our comments on Emission Unit F002 are also limited to a requested increase in the time associated with allowable visible emissions for load-in and load-out of the coke storage pile from 1 minute to 3 minutes during any 60-minute period specified in Part III.A.I.1. For conformity, this would also result in a change in Part III.A.V.1.c to also specify allowable visible emissions of up to 3 minutes during any 60-minute period.

This requested increase in visible emissions is consistent with the BAT information discussed above. We believe the calculations used to estimate PM/PM10 emissions from the load-in and load-out operations are also based on conservative emission factors and reasonable RACM that reduce estimated PM/PM10 emissions by 85%. As a result, the emission factors and estimates used in the PTI application clearly incorporate the ability to have higher allowable visible emissions from the load-in and load-out operations. Therefore, the Ohio EPA clearly will not be increasing actual emissions at the FDS Coke Plant by increasing the allowable visible emissions for this operation from 1 minute to 3 minutes during any 60-minute period.

It should be noted again that the Ohio EPA requirement for no visible emissions with the exception of 1 minute in any hour is still significantly more stringent than required by neighboring states such as Pennsylvania for the same emission source. The recently issued permit for the Cambria Coke Plant included allowable fugitive visible emissions from roads and parking of up to 20% for up to 3 minutes in any 60 minutes. Obviously, this difference in regulation creates a competitive disadvantage to the FDS Coke Plant without any tangible benefit to the environment.

### **PART III: EMISSION UNIT F003**

Our comments on Emission Unit F003 are limited to a change in the prohibition of no visible emissions of fugitive dust from any egress in any building enclosing any process of this emission unit which is served by a dust collector specified in Part III.A.I.2.e to allow for up to 1 minute of visible emission during any 60 minutes. For conformity, this would also result in a change in Part III.A.V.4.c to also specify allowable visible emissions of up to 1 minute during any 60-minute period.

This requested increase in visible emissions is consistent with the BAT information discussed above. We believe the calculations used to estimate PM/PM10 emissions from the totally enclosed buildings using cyclone dust collectors incorporate the limited PM/PM10 emissions provided by a 1-minute in any 60 minutes visible emission limitation. As a result, the emission factors and estimates used in the PTI application clearly incorporate the ability to have visible emissions from

## **Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

the totally enclosed buildings. Therefore, the Ohio EPA will not be increasing actual emissions at the FDS Coke Plant by providing for an allowable visible emission for this operation of 1 minute during any 60-minute period. In contrast, the requested change will recognize the operational reality that when employees have to briefly enter a building or conduct maintenance activities a brief 1-minute visible emission is likely to occur. These very intermittent visible emissions would be indicative of the type of operations to be conducted.

### **PART III: EMISSION UNIT F004**

Our comments on Emission Unit F004 are also limited to a change in the prohibition of no visible emissions of fugitive dust from any egress in any building enclosing any process of this emission unit which is served by a dust collector specified in Part III.A.I.2.c to allow for up to 1 minute of visible emission during any 60 minutes. For conformity, this would also result in a change in Part III.A.V.1.k to also specify allowable visible emissions of up to 1 minute during any 60-minute period.

This requested increase in visible emissions is consistent with the BAT information above. We believe the calculations used to estimate PM/PM10 emissions from the totally enclosed buildings using cyclone dust collectors incorporate the limited PM/PM10 emissions provided by a 1-minute in any 60 minutes visible emission limitation. As a result, the emission factors and estimates used in the PTI application clearly incorporate the ability to have visible emissions from the totally enclosed buildings. Therefore, the Ohio EPA will not be increasing actual emissions at the FDS Coke Plant by providing for an allowable visible emission for this operation of 1 minute during any 60-minute period. In contrast, the requested change will recognize the operational reality that when employees have to briefly enter a building or conduct maintenance activities a brief 1-minute visible emission is likely to occur. These very intermittent visible emissions would be indicative of the type of operations to be conducted.

### **PART III: EMISSION UNITS P001/P002**

Our Comments on both P001/P002 (the Quench Towers) include the following:

Delete Part III.A.I.2.c: The deletion of the no visible emission (VE) limit for the quench tower is based on this emission unit not being a building served by a dust collection device. This requirement as written is more restrictive than BAT. The Haverhill Phase I PTI issued in December 2003 and reissued in June 2004 for Phase II does not include this VE limitation specified for the exact same emission unit (i.e., Quench Towers. In addition, this VE limitation is not specified at other quench towers recently permitted in Pennsylvania or at Indiana Harbor. Obviously, this difference in regulation creates a competitive disadvantage to the FDS Coke Plant without any tangible benefit to the environment. We also believe the requirement for no VE's is a duplicative and unreasonable operating requirement. Potential fugitive VE emissions from this emission unit are also already addressed under I.2.b.

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

To provide for internal PTI consistency we also request that Ohio EPA also delete Part III.A.V.2.c based on deletion of no VE requirement in Part III.A.I.2.c.

**PART III: EMISSION UNITS P003/P004**

Our Comments on both P003/P004 (the Lime and Desulfurization Dust Silos) include the following:

Delete Part III.A.I.2.b: The deletion of the no visible emission (VE) limit for the silos is based on this emission unit NOT being a building served by a dust collection device. This requirement as written is much more restrictive than BAT. The Haverhill Phase I PTI issued in December 2003 and reissued in June 2004 does not specifically include VE limitations for these same emission units although these emission units will be operating at the Plant. In addition, this VE limitation is not specified in the recently permitted Cambria Coke Plant in Pennsylvania or at Indiana Harbor Plant. Obviously, this difference in regulation creates a competitive disadvantage to the FDS Coke Plant without any tangible benefit to the environment. We also believe the no VE limitation is an unreasonable operating requirement and potential fugitive VE emissions are already addressed under I.2.a.

To provide for internal PTI consistency we also request that Ohio EPA also delete Part III.A.V.2.c based on deletion of no VE requirement in Part III.A.I.2.c.

*Response: Ohio EPA does not concur with the applicant's comment on emission units F001, F002, P001, P002, P003 and P004, and, therefore, no change has been made to the permit. However, we have revised the term in Part III.A.I.2.e for emission unit F003 and Part III.A.I.2.c for emission unit F004 as requested.*

**Comment #155**

Could you please provide how much additional SO<sub>2</sub> could be allowed at the coke plant before modeling would find it unacceptable? And the same question for the other pollutants being granted in the coke plant permit?

*Response: While there could be an infinite combination of increase scenarios, if we assume that emissions from all FDS sources would be increased proportionately, then we can ratio up the impacts to see how much more could be added before the Ohio acceptable increment impact (25/30 of the full increment in an area of limited areal extent above 50% of the full increment) would be exceeded and there would be a concern that additional new source expansion in that region would be inhibited. Based on this we estimate that if emissions were increased by a multiple of the values listed below, the modeling would result in unacceptable results.*

<u>Pollutant</u>	<u>Factor by which allowable emissions would cause modeling results to fail</u>
CO	7.2

**Interested Party Comments and Ohio EPA/Toledo DES Response to Comments for the  
FDS Coke Air Pollution Permit-to-install Number 04-01360**

---

<i>NO<sub>x</sub></i>	8.32
<i>PM<sub>10</sub></i>	1.178
<i>SO<sub>2</sub></i>	1.557
<i>mercury</i>	1205
<i>lead</i>	4.8