RESPONDENT'S EXHIBIT 7

BEFORE THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:)
PROPOSED ISSUANCE OF A)
CONSTRUCTION PERMIT TO)
CHICAGO COKE COMPANY)

REPORT OF PROCEEDINGS taken at the hearing of the above-entitled matter, held at 11731 South Avenue O, Chicago, Illinois, before Hearing Officer Charles Matoesian, reported by Janice H. Heinemann, CSR, RDR, CRR, a notary public within and for the County of DuPage and State of Illinois, on the 25th day of January, 2005, commencing at the hour of 7 p.m.

APPEARANCES:

MR. CHARLES MATOESIAN, IEPA Hearing Officer;
MR. CHRISTOPHER ROMAINE, BOA, Manager, Utilities Unit;
MR. JASON SCHNEPP, BOA, Environmental Protection Engineer;
MR. BRAD FROST, Community Relations.

For the record, I would like to state that notice of this hearing was placed in the Daily Southtown Newspaper with run dates of December 11th, December 18th, and December 25th of 2004.

I will now turn things over to Mr. Jason Schnepp, who is an environmental protection engineering with the Bureau of Air.

(Exhibits 1 through 4 tendered.)

MR. SCHNEPP: Good evening, ladies and gentlemen. My name is Jason Schnepp, and I'm a permit engineer in the Bureau of Air. I will be giving you a brief description of the project.

Chicago Coke Company has requested a permit for the modification of its existing coke oven battery located in Chicago. This facility also includes a byproducts recovery plant, which receives raw coal -- raw coke oven gas from the battery and processes it, recovering coal tar, ammonia sulfate, and oils. The cleaned coke oven gas, which also has impurities such as sulfur removed, is then used as fuel in the coke oven battery and boilers.

The coke oven battery, byproduct plant, and ancillary operations were previously operated by LTV Steel. In December 2001, LTV Steel discontinued

turbine generator with a larger unit, so that the capacity of the turbine does not act to limit the amount of coke oven gas burned in the boilers. With the larger turbine, less coke oven gas would be flared. This extra coke oven gas will be burned in the lower emitting boilers as compared to flaring.

This facility is not considered a new major source because the source was not permanently shut down. In particular, LTV Steel made considerable efforts when operations were temporarily discontinued to minimize the effort and cost of resuming operations at the facility. These efforts included, but were not limited to, operating the coke oven battery in a hot idle mode for a period of time, maintaining and not dismantling or demolishing equipment, and maintaining its operating permit. The goal of Chicago Coke has been to resume operations at this facility as soon as possible, since the market for coke has improved.

Under both the PSD rules and the nonattainment New Source Review rules, the proposed project does not constitute a major modification. This is because Chicago Coke will be subject to operating and emission limitations such that a

into the microphone, and please speak clearly and state and spell your name for the record.

First speaker will be Mr. Alan Beemsterboer.

MR. ALAN BEEMSTERBOER: My name is Alan Beemsterboer. I want to introduce to you two members of Chicago Coke. My name is Alan Beemsterboer. We have Steve Beemsterboer and Simon Beemsterboer.

Steve is going to give you a quick overview of the project. Simon is going to give you an overview of some of the environmental issues, and I'm going to talk a little bit about the economic impact in this project.

So I would like to turn this over to Steve Beemsterboer and he will continue.

MR. STEVE BEEMSTERBOER: Good evening. And I think we have a lot of supporters out there and appreciate your coming out tonight.

We have been working for the Beemsterboer Corporation for a long time. The Beemsterboer Company has been in business since 1946 in this area. We have been working in the steel mills full-time since that time. So we have been very familiar with this industry. When this property

Chicago Coke Company because that was the nickname for this plant, Chicago Coke, for many years.

We formed that company for two purposes; one, to modify the existing permits to allow for improvements that will greatly reduce emissions, and to market the plant to a qualified steel mill. After two years of hard work and great expense, we are very excited to be here tonight, which is a major milestone in obtaining the final permit in getting this plant reopened.

We truly feel this project is a good thing for the local community, the local steel mills, because this coke will be used in the neighboring steel mills. It will help them remain competitive and keep all those jobs going. And we feel it would be a good thing for America because America needs to retain some manufacturing jobs to remain competitive in the global economy we are all in. We cannot allow all our jobs to be shipped overseas unless we want to let our middle class disappear.

Lastly, we are very proud to have the support of the Southeast Environmental Task Force. That's the local community group. We received a letter from them of recommendation that they would

like to see these jobs come back as long as we or the plant is run under the permit regulations, which will be done.

So again, thank you for coming out tonight. That's a short history of what we have done. And during the question and answering period, I would like to answer any other questions you have.

MR. SIMON BEEMSTERBOER: Hi. My name is Simon Beemsterboer. I'm one of the partners of Chicago Coke. And when we decided to go ahead with the project, of course one of our first concerns was also the state of the environment on the property. With all the rumors about this being there and different things, we decided to do our own investigation. We found the property not without issues but much better than expected and with no issues that exceed industrial standards. This means that we can put people back to work on this project with just normal environmental considerations, nothing too outlandish to get going.

Our next step was to decide our operating policy. Should we take a quick fix, which was just sealing up the batteries and doing the best we could, or go back -- or repairing the plant

properly. With the advice of the IEPA and others, we decided that the only real option was to put the plant together properly and go from there.

The permit that we are here for today will allow us to build a state-of-the-world coke-making facility. The main refinements will come through under the improved gas handling called the PROven system, the low NOx burners, an upgraded and consolidated coal-handling system, and a whole coal yard water spray system. Along with additional improvements, these will help us build a facility that will meet or exceed all known emission levels well into the future. As projected now, these improvements will create a new target level for all future coke plants.

On a broader picture, our environmental responsibility to the area around the plant are also addressed. Water pulled in from the river will be cleaner when it's returned than when we drew it out. Dust pollution with our controls in place and being monitored by a viable business will be better than a barren field.

Also, traffic can be held to a minimum as the raw and finished products of the coke plant

RESPONDENT'S EXHIBIT 8

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR

April 2005

Responsiveness Summary
for Public Questions and Comments on the Construction Permit Application from
Chicago Coke Company

Site Identification No.: 031600AMC
Application No.: 04010037

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INTRODUCTION

The Chicago Coke Company has submitted a construction permit application for a "pad-up rebuild" prior to resuming operations of its plant, formerly owned by LTV Steel, Inc., in the City of Chicago. The plant produces metallurgical coke primarily for use in blast furnaces in the iron and steel industry. The pad-up rebuild would involve replacing the brickwork of the coke oven battery, in which coal is processed to convert it into coke. As part of the rebuild, Chicago Coke would also make various improvements to the emissions controls on the plant, as further described below. The proposed project requires a construction permit from the Illinois EPA because the plant is a source of emissions and the project involves modifications to the plant.

Upon review of comments received during the public comment period and final review of the application, the Illinois EPA has determined that the project meets the standards for issuance of a construction permit. Accordingly, on April 28, 2005, the Illinois Environmental Protection Agency (Illinois EPA) issued a construction permit to the Chicago Coke Company for the project. When the facility resumes operation, the facility must be constructed and operated in accordance with applicable regulations and the conditions of the permit.

DESCRIPTION OF PROPOSED PROJECT

Metallurgical coke is produced by "cooking" coal in coke ovens. In the ovens, appropriate coal that is suitable for "coking" is heated at high temperature in an oxygen-free atmosphere. This drives off volatile components in the coal, yielding coke oven gas as a byproduct. The solid material remaining behind in the ovens is the coke. In a recovery coke plant, like Chicago Coke's plant, the raw coke oven gas from the coke battery is processed in the by-product plant through a series of processes to recover coal tar, sulfur compounds, ammonia, benzene and certain other organic chemical components. The gaseous material that remains after processing in the by-products plant has fuel value and is used for heating the coke ovens. Support operations at the plant for the coke making process include coal and coke handling and material processing. The plant also has four boilers, which are fired with cleaned coke oven gas and natural gas, that supply heat and power for the coke making process.

This project involves the coke oven battery located on the south side of Chicago that was formerly owned by LTV Steel, Inc. LTV operated the plant until December 2001. In December 2001, LTV discontinued coke production and the battery was put into hot idle mode. In February 2002, the battery was placed into cold idle-mode. On December 30, 2002, the plant was sold to Calumet Transfer Company, LLC and Chicago Coke Company was organized to operate the plant for Calumet Transfer.

Chicago Coke has decided that for effective operation, a "pad-up rebuild" is necessary. The most appropriate time to perform a "pad-up rebuild" is before resuming operation. This "pad-up rebuild" involves rebricking the coke oven battery from the pad up, i.e., it does not involve changes to the existing deck slab or coke oven battery layout or "footprint." However, Chicago Coke will be making various enhancements to the battery and ancillary operations during the "pad-up rebuild" that should improve operation and the level of emissions control. The plant will also be subject to

tighter operating and emission limitations such that a significant increase in emissions will not occur.

The planned improvements to the plant include installation of a PROven System in the gas collection system from the battery, to better manage the pressure in the ovens. This is an electronic controller system, called the Pressure Regulated Oven (PROven) System, that should increase the effectiveness of gas collection and emissions control from the coke oven battery. With the PROven System, the gas collecting main is maintained under suction (negative pressure) and the pressure of individual ovens is controlled depending on the stage of the coking cycle, independent of the pressure in the collecting main. Chicago Coke expects that by better management of oven pressure during the coking cycle, the PROven system will reduce the number and extent of leaks from the ovens and reduce the associated emissions. For emissions of nitrogen oxides (NOx), enhancements would be made to the existing staged combustion system in the battery. Low NOx burners would be installed in two of the boilers at the plant, Boilers 1 and 4. Chicago Coke would also replace the steam turbine generator associated with the boiler house with a larger unit, so that the capacity of the turbine does not act to limit the amount of the coke oven gas burned in the boilers. Chicago Coke anticipates that with the larger turbine, less coke oven gas would be flared. This "extra" coke oven gas would be burned in the lower emitting boilers (as compared to flaring).

COMMENT PERIOD AND PUBLIC HEARING

The Illinois EPA Bureau of Air evaluates applications and issues permits for sources of emissions to the atmosphere. An air permit application must appropriately address compliance with applicable air pollution control laws and regulations before a permit can be issued. Following its initial technical review of Chicago Coke's application, the Illinois EPA Bureau of Air made a preliminary determination that the project met the standards for issuance of a construction permit and prepared a draft permit for public review and comment.

The public comment period began on December 11, 2004, with the publication of a notice in the Daily Southtown. Additional notices were published in the Daily Southtown on December 18 and 25th, 2004.

A public hearing was held on January 25, 2005, at The Zone, Youth and Community Center, 11731 South Avenue O in Chicago to receive oral comments and answer questions regarding the application and draft air permit. The comment period originally was scheduled to close on February 24, 2005, to receive written comments. The comment period was extended twice with the comment period ultimately closing on March 25, 2005.

AVAILABILITY OF DOCUMENTS

Copies of the final Permit and this Responsiveness Summary are available through the following means:

1. By viewing the documents at one of the following repositories:

Vodak/East Side Branch of the Chicago Public Library 10542 S. Ewing Avenue Chicago, IL 312/747-5500	Illinois EPA – Des Plaines Regional Office 9511 West Harrison Des Plaines, IL 847/294-4000	Illinois EPA 1021 North Grand Avenue, East Springfield, IL 62794 217/782-7027

2. By contacting the Illinois EPA by telephone, facsimile or electronic mail:

   Illinois EPA
   Bradley Frost, Office of Community Relations
   217-782-7027 Desk line
   217-782-9143 TDD
   217-524-5023 Facsimile
   brad.frost@epa.state.il.us

3. By accessing the World Wide Web at www.epa.state.il.us/public-notices/general-notices.html or www.epa.gov/region5/air/permits/ilonline.htm (for the second address look under All Permit Records, State Construction Permit, New).

To obtain a printed copy of the documents by mail and free of charge, please contact me at the contact information listed in #2 above.

QUESTIONS AND COMMENTS

1. **What is a coke oven battery?**

A coke oven battery is group of oven chambers connected by common walls in which coal is fed and "cooked". The heat in the ovens drives off volatile compounds from the coal as gases, to form carbon-rich coke.

2. **What is the difference between a recovery coke oven battery and a non-recovery battery? Where are there non-recovery coke oven batteries?**

At a recovery coke oven battery, such as the Chicago Coke plant, the gas produced by the "cooking" of coal in the ovens is processed at an associated byproducts plant before the gas is burned as fuel. In the byproducts plant, certain chemical constituents in the gas are recovered for separate sale, as those constituents have value. The remaining gases from the byproducts plant are sent back to the coke ovens as "clean" coke oven gas to be used as a fuel.

At a non-recovery coke oven battery, the gas produced by the coking process is immediately combusted in and around the coke oven to provide heat for the coking process, thus eliminating the need for a by-products plant.

Recovery coke oven batteries are more common. However, there are several non-recovery coke oven batteries in the country including Indiana Harbor (East Chicago, IN) and Jewell Coal & Coke Company (Vansant, VA).

3. **What is a "pad-up rebuild" of a coke oven battery?**

A pad-up rebuild is a complete reconstruction of the brickwork or refractory of an existing coke oven battery on the same site and pad without an increase in the design capacity of the coke plant. Because the ovens are made of brick, the pad-up rebuild will involve replacing the brick but not the deck slab or coke oven footprint, i.e., the oven will retain its original size. In addition, the coke oven battery will continue to utilize existing infrastructure associated with the battery, including coal charging and coke pushing and quenching systems.

4. **When did this plant last operate?**

The facility discontinued coke production in December 2001.

5. **The draft permit reflects an unacceptable exercise of agency discretion in favor of the applicant and against public health and environmental quality.**

This comment reflects a lack of understanding about the extent of discretion that the Illinois EPA has in the review of a permit applications for a proposed project. If a proposed project complies with applicable regulatory requirements, it shall be the duty of the Illinois EPA to

issue a permit for such project. This said the Illinois EPA has general authority to impose additional requirements on the plant to minimize its emissions and impacts, which it has done.

6. **This original application submitted by Chicago Coke was denied, in large part, because Chicago Coke failed to establish its proposal was not subject to the emission standards appropriate for a major modification or a new source. The Illinois EPA was correct in denying Chicago Coke's original permit application for its failure to demonstrate that this project is a minor modification. Correspondingly, the draft permit proceeding is legally inadequate because it characterizes this project as a minor modification, rather than as a new source or major modification.**

The Illinois EPA denied Chicago Coke's initial permit application because that application did not include necessary information to address several issues with respect to the proposed project, one of which was the appropriate treatment of the project for purposes of New Source Review. Chicago Coke subsequently resubmitted an application that did include information to further address this issue. The fact that the initial application was inadequate is not relevant to the adequacy of the later application, which is the basis of the Illinois EPA's action to issue a permit. The Illinois EPA's review of this later application indicates that this project should be treated as a modification, but not a major modification, because the increases in emissions of various pollutants are not significant.

7. **It does not appear that Chicago Coke applied for a CAAPP permit renewal within 18 months of the existing permit expiration date as required.**

Chicago Coke applied for a renewal of its existing CAAPP permit in a timely manner. Applications for renewal of CAAPP permits are to be submitted no less than 9 months prior to the date of expiration, not 18 months. (Refer to 39.5(5)(n) of the Environmental Protection Act.)

8. **The construction permit application submitted by Chicago Coke does not meet the requirements of 35 IAC 201.152 as related to mercury emissions from the plant. This rule requires that a permit application contain the following information:**

> **...the nature of the emission and air pollution control equipment, including the expected life and deterioration rate, information concerning processes to which the emission unit or air pollution control equipment is related; the quantities and types of raw materials to be used in the emission unit or air pollution control equipment; the nature, specific points and quantities of uncontrolled and controlled air contaminant emissions at the source that includes the emission unit or air pollution control equipment...**
>
> **Instead, the draft permit allows the plant to resume operation without determining the nature, specific points and quantities of uncontrolled and**

controlled mercury emissions, and without an evaluation of pollution control equipment that might control these emissions.

The application contains information that is adequate to meet the cited rule. In addition, with respect to emissions of mercury, the information in the application indicates that the mercury emissions of the plant should be small, as the mercury contained in the incoming coke is retained in the coke or collected in the by-products plant. Coke ovens are also not identified as a source of concern for mercury emissions, like coal-fired power plants. As such, the application includes information for mercury that is sufficient to generally assess the emissions from the plant, particularly as no state or federal regulations are currently applicable to the plant for mercury. Applicants for permits are required to provide information sufficient to address compliance with applicable requirements. In order to obtain a permit for a project like the one proposed, the applicant is not required to conduct an evaluation of controls for pollutants that are not currently regulated. This is specifically acknowledged by 35 IAC 201.152, as it also provides that the Agency may waive the submission of information that is unnecessary to an application.

9. **USEPA identified the greater Chicago area as a nonattainment area for PM2.5 appeared in the Federal Register on January 5, 2005. However, the effective date of this designation is 90 days later, on April 5, 2005. The record closes as a matter of law 30 days beyond the end of a public hearing unless extended by the hearing officer. The record in the present matter was closed as a matter of law at midnight on March 25, 2005. Since the record closed before Chicago area was effectively designated as a nonattainment area for PM2.5, the Illinois EPA may not consider the change in attainment status for this pollutant.**

This comment confuses the record for the public comment period with the record for the permitting decision.

10. **The USEPA is subject to a consent decree that require it to complete a review of the federal standards for emissions of hazardous air pollutants from coke ovens by March 31, 2005. (*Sierra Club v. Michael O. Leavitt*, Case No. 1:02CV00946, U.S. District Court for D.C.) The decree requires USEPA to review its existing emission standard for coke ovens, to determine the health risk from these facilities and, if necessary, to set new standards that are sufficient to protect public health with an ample margin of safety. Additionally, USEPA must assure that its standards reflect the maximum achievable degree of reduction in emissions. Changes to the regulations that result from this review may impact this plant and any further permit deliberations should reflect any findings and new rules resulting from this analysis.**

These events do not provide a legal basis to delay action on the requested permit. In addition, these comments identify and confirm actions by USEPA that will apply to this plant and act to further assure that emissions from this plant are well controlled and do not pose a significant threat to the health of the local community. In particular, if USEPA determines that the emission standards for existing coke oven batteries must be tightened,

the tighter standards would also apply to this plant. Such standards would be addressed in future permits for the plant.

11. **Condition 2.1.3-7(c)(ii) of the draft permit, which deals with opacity limit for the combustion stack of the battery during certain repairs to oven brickwork, is not consistent with 35 IAC 212.443(g)(2).**

This is correct. This condition reflects requirements of a site-specific revision of Illinois' State Implementation Plan (SIP) that impose more stringent requirements on opacity during such periods than 35 IAC 212.443(g)(2). (Refer to 40 CFR 52.720(c)(150)(i)(B).) These requirements were developed with USEPA as part of Illinois' strategy for attainment of the PM10 air quality standard. In addition to reducing the duration of higher opacity during such periods, the SIP revisions also clarifies that these provisions are intended to only address opacity during such periods and would not apply to the standard for particulate matter emissions, as contained in 35 IAC 212.443(g)(1). In addition, if Chicago Coke operates a continuous opacity monitor on the combustion stack, such action would not invalidate observations of opacity made in accordance with USEPA Method 9 by human observers. As human observations of opacity address actual opacity of the discharge, rather than opacity in the stack, and are not subject to mechanical failure like opacity monitors, human observations of opacity also may take precedence over data from an opacity monitor.

12. **If the plant were characterized as a new source or major modification, the opacity limit would be 20 percent, pursuant to the applicable standard for new emission units.**

This is not correct. The various State emission standards for coke oven batteries are contained in 35 IAC 212.443, which sets identical standards for new and existing plants and incidentally does limit opacity from pushing of coke ovens to 20 percent (35 IAC 212.443(c)(1)).

13. **The permit inappropriately requires that the Permittee assess whether a permit violation has occurred. The finding of a violation is only appropriate by the agency itself.**

It is true that the Illinois EPA is authorized and has a duty to identify and appropriately address violations of the state and federal environmental laws and regulations. However, for myriad reasons, the source is also obligated to identify its compliance status with applicable environmental laws and regulations. Most importantly, as an existing CAAPP source, Chicago Coke is obligated to identify its compliance status with each and every applicable regulatory requirement or permit condition. In fact, the permit requires the submittal of an annual certification of compliance by May 1 of each year for the prior calendar year, pursuant to the source's CAAPP permit.

14. **This opacity testing provision imposes a standard that is inconsistent with other similar provisions in the permit where it would only allow the termination of opacity**

testing if "the first 12 minutes of observations are both less than 5.0 percent." Other permit provisions (See e.g. 2.6.7-1.a.ii) more appropriately allow the early termination of opacity testing if the first 12 minutes of observations are "less than half of the applicable standard." This language should be inserted here

From a technical perspective, the cited differences relate to the inherent differences between boilers and the miscellaneous process equipment. Specifically, based on available information, the Illinois EPA expects that boilers will typically operate considerably below the opacity standard as compared to the miscellaneous process equipment. From a legal perspective, the Illinois EPA has general statutory authority for the requirements as cited.

15. **This provision would require the conduct of "detailed inspections" of the dust collection units while they are "out of service." There is no basis for requiring the inspection of units that are out of service. Rather, the weekly inspections required during operations should be sufficient to identify any concerns that must be addressed. This requirement should be deleted entirely.**

The purpose of inspection of out of service dust collection units relates to the fact that a different type of evaluation can occur during outage than can occur during a weekly inspection of an in-service unit, as such out-of-service inspections can extend to the condition of the internal components of control devices. Further, the Environmental Protection Act gives the Illinois EPA the authority to "impose such other conditions as may be necessary to accomplish the purposes of th[e] Act...

16. **The permit's requirement that inspections be performed "by personnel not directly involved in the day-to-day operation of the affected units" is inappropriate and should be deleted. This would create needless inefficiency by requiring the Permittee to train employees not familiar with the operations at issue solely for the purpose of inspections. This would impose unnecessary and unwarranted personnel costs and would unfairly infringe on the staffing flexibility needed to operate the facility in an efficient manner.**

The purpose of the inspections is to ensure compliance with the control measures for material handling operations. More specifically, the rationale for requiring the inspections be performed by "personnel not directly involved in the day-to-day operations of the affected units" is to provide assurance that the control measures have been properly implemented, beyond that which is provided where inspections are performed by the day-to-day staff operators.

17. **The Permittee should have the flexibility to increase its daily coal usage if it can demonstrate that the emission factor has changed and more coal can be charged without exceeding the applicable short-term emission rate.**

The flexibility requested by this comment is not available and will not be included in the permit. This is because a change in emission factors alters not only the permitted emissions but may also affect the quantification of the past actual emissions. The specific example

provided would require a revision of the permit which would entail an adjustment of the actual emissions (Attachment 3) and the future permitted emission (Attachment 1).

18. **There is no limit in the permit for ammonia content, and therefore there is no basis for including provisions requiring sampling and analysis of ammonia nor recordkeeping associated therewith.**

Coal contains nitrogen that when "cooked" in the ovens will produce ammonia which is converted to NOx when buried. Thus the purpose of the sampling, analysis and recordkeeping for ammonia in the coke oven gas is to ensure compliance with the NO_x emission limits set forth in this permit.

19. **Condition 1.5.1(a)(ii) inappropriately precludes the exclusion from the annual emissions calculations (for purposes of compliance with annual emission limits) increases in emissions that are unrelated to the physical changes allowed under this permit. The permit should remove the artificially limit the excluded emission increases to the boilers. Other emission units (e.g., roads, gasoline storage and transfer, material handling) could also experience increases in emissions unrelated to the rebuild of the coke plant that should be excluded from the annual emissions used to demonstrate compliance with annual emission limits. The phrase, "that are unrelated to the production of coke and coke byproducts" should be deleted because emissions from any subsequent projects should be excluded from the relevant annual emissions calculations.**

The boilers at the plant can clearly have functions that are not related to the operation of the coke plant and emissions from such activities could easily be distinguished from the total emissions of the facility and independently quantified (i.e. generating electricity for sale). However, it is difficult to make the same determination for emissions from roads, gasoline storage and transfer and/or material handling. As Chicago Coke failed to address in its application those units from which emissions increases could possibly be excluded from annual emissions calculations, the Illinois EPA could only address limited units in this permit; those for which the exclusion was obviously appropriate.

20. **Why does the permit contain limits from the PSD permit when they appear to be less stringent than NESHAP limits or other conditions of the permit?**

The PSD permit conditions, unless otherwise noted, are an instantaneous limit, whereas the NESHAP limits have specific provisions allowing a 30-day average. Accordingly, it would not be appropriate to supersede an instantaneous PSD permit limit with a seemingly more stringent NESHAP limit with which compliance is determined on a 30-day average. Also, some terms are defined differently for the PSD permit and the NESHAP. For example, the PSD permit limits emissions from charging hole lids, whereas other conditions in the permit address emissions from *all* lids, which is interpreted to include both charging hole lids and jumper pipe lids.

21. **Condition 1.4.1(b) should read "Compliance with the annual *emissions* limit shall be determined on a rolling 12 month total." Furthermore, coal usage should be one way to calculate the monthly emissions in that rolling 12-month summation.**

The purpose of Condition 1.4.1(b) is to require a 12-month summation each month such that the annual coal usage limit would be enforceable each month that the plant operated. For many emission units at the plant, coal usage is one factor needed to calculate emissions for the month and the rolling 12-month summation.

22. **The limits for sulfur dioxide (SO_2) in the draft permit are arbitrary and contrary to material in the application. The SO_2 emission limits are much higher than the emissions previously reported by LTV for the plant, without any rationale for this increase. The SO_2 emission increases are contrary to minimal legal requirements.**

The allowable emissions of SO_2 in the draft permit also far exceed Chicago Coke's own representations of emissions of SO_2. In a letter from Chicago Coke to the Illinois EPA, dated August 12, 2004, supplementing its application, Chicago Coke indicated that the net change in annual SO2 emissions would be 3.2 tons, based on future allowable emissions of 196.6 tons, as compared to past actual emissions of 193.3 tons, based on average actual annual emissions from 1999 and 2000, consistent with 40 CFR 52.21(b)(2)(i) and (b)(48). Instead of reflecting these performance-based emission estimates, the annual limit for SO_2 emissions in the draft permit is 232.9 tons, with a net change of 39.6, not 3.2. The Illinois EPA fails to explain why this higher limit for SO_2 emissions is justified. In addition, in Condition 1.5.2 of the draft permit, the new level of permitted SO_2 emissions is described as 299 tons per year, more than 100 tons in excess of historical levels, and more than 65 tons per year greater than emission limitation in Attachment 1 of the draft permit. Table 3 in the Project Summary describes "historical actual emissions" of SO_2 as 193.4 tons per year, while Attachment 3 in the draft permit describes historical actual emissions of SO_2 as 257.3 tons per year, completely different figures both somehow based on "the calendar years 2001 and 2002." Attachment 2 of the draft permit includes a table with yet another actual emission levels, 181 tons per year, and two characterizations of the plant's potential SO_2 emissions, 193.7 and 299 tons per year respectively. This erratic characterization of actual and potential emissions is internally inconsistent, strongly suggesting any resulting emission limitation is arbitrary and also calling into question whether the emissions calculations for SO_2 emissions are credible.

The confusion about past SO2 emissions of the plant and the applicable limitations is understandable, particularly as both the project summary and the draft permit inadvertently failed to reflect the most recent data for past SO2 emissions from the plant submitted by Chicago Coke. The issued permit corrects these errors, setting an annual limitation on SO_2 emissions of 287.6 tons, based on past emissions of 248.1 tons, with an increase of 39.5 tons per year.

This confusion occurred because Chicago Coke initially used available data for the plant, which only accounted for the hydrogen sulfide (H_2S) content of the coke oven gas, to

calculate the past emissions of SO2 from the plant. This calculation did not account for other organic sulfur compounds (CS2 and COS) also present in the coke oven gas in lesser concentrations than H_2S. Accordingly, the Illinois EPA required Chicago Coke to submit revised calculations to address all SO2 emissions from the plant, including the SO2 emission attributable to the organic sulfur content of the coke oven gas. This resulted in a higher level of past SO2 emissions from the plant than initially calculated by Chicago Coke.

23. **The SO_2 emission limits in the draft permit appear to be arbitrarily and contrary to the application. The plant's allowable SO_2 emissions are not consistently calculated or described in the draft permit and related documents. For example, the draft permit provides no sulfur emission factor for the combustion stack and clean coke oven gas, but rather a footnote stating, "SO_2 emissions are to be determined from actual sulfur content of coke oven gas, assuming complete conversion of sulfur to SO_2." By contrast, the previous CAAPP permit issued to LTV used an SO_2 emission factor of 94.05 lb/million cubic foot.**

This comment reflects a misunderstanding of the role of emission factors. As related to the emissions of SO2 attributable to burning coke oven gas, the permit requires that the future emissions of SO2 from the plant be determined based on actual sampling and analysis of coke oven gas. This provides more accurate information on actual emissions than an emission factor and accounts for variability in the sulfur content of the coal supply to the battery and the performance of the sulfur removal system in the by-products recovery plant.

24. **The annual limitation for SO_2 emissions in the draft permit is unenforceable because exceedances would not be considered violations for up to 27 months following resumption of operation of the plant. This exemption for violations of the SO2 emission limit is contrary to minimal legal requirements. In particular, under Condition 1.5.1(b)(i), if the sampling and analysis of the coke oven gas during months 5 through 16 of resuming operation shows that a different level of organic sulfur is present in the coke oven gas than historically, Chicago Coke must apply for a revision to the permit. As drafted, any exceedance of the SO_2 limitation in the draft permit would not be considered a violation until the revised permit is issued or month 27, whichever is first. Moreover, under Condition 1.5.1(b)(ii), regardless of how far SO_2 emissions exceed the significance threshold during this period, the resumption of operation of the plant would not be subject to permitting as a major modification. Simply, the plant could be operating far in excess of the SO_2 limitation and significance threshold, for more than two years, and not be subject to enforcement or PSD.**

This comment misrepresents this condition of the draft permit. The condition at issue does not allow a significant increase in SO2 emissions from the plant. The condition clearly provides that an exceedance of the SO2 limitation would not be considered a violation only if this project still does not constitute a major modification for purposes of the PSD rules. The condition also provides that an exceedance would not to be considered a violation only if it is also attributable to the organic sulfur content of the coke oven gas, that is, the exceedance is not a consequence of the hydrogen sulfide content of the gas.

This condition is an appropriate response to the nature of information that is available for the past actual emissions of SO2 from the plant attributable to the organic sulfur content of coke oven gas. The data for organic sulfur content of the coke oven gas does not approach the quality of the data for the hydrogen sulfide content of the gas, which is based on actual sampling and analysis on a daily basis of the clean coke oven gas produced at the plant. Instead, the data for organic sulfur content relies upon a small amount of data for the organic sulfur content of the coke oven gas at other similar plants. Thus, the permit requires Chicago Coke to apply for a revised permit if the organic sulfur content of the coke oven gas is different, either higher or lower, than the data in the application used for the organic sulfur content of the coke oven gas.

The approach in the permit to emissions of SO2, as noted in this comment, is not the same as that for nonattainment pollutants. However, the approach to SO2, which is attainment pollutant governed by the PSD rules, is still technically sound as Chicago Coke is required to conduct a program of regular sampling and analysis of coke oven gas to determine its sulfur content, and thus the SO2 emissions from the plant, which occur almost entirely from burning of coke oven gas. Equally important, the approach to SO2 emissions in the permit is consistent with applicable requirement of the PSD rules, which do not require explicit limits on future emissions when permitting modifications. The format and approach to limiting SO2 emissions in the permit is consistent with the requirements of the PSD rules, 40 CFR 52.21(b)(2) and (r)(6).

25. **Condition 2.2.6-2(a)(i) of the draft permit requires Chicago Coke to determine the level of overall mercury control <u>after</u> it begins operation, not as part of the application. This determination will be made 4 to 9 months after the plant resumes operations, and will be submitted by the 12th month of operation. If the evaluation discloses that more than 10 percent of overall mercury emissions are being released to the environment, then Chicago Coke must consider whether lower mercury emissions from the source may be reliably achieved without unacceptable consequences. Only if this evaluation reveals more than 20 percent of overall mercury emissions are being released to the environment is Chicago Coke required to perform an engineering review of possible physical changes to the source to enhance the level of control of mercury emissions. Chicago Coke then has potentially 48 additional months (24 months initially, with possible 24 month extension) to submit this evaluation. After this three to five year period, if the plant is still emitting 15 percent or more of its mercury, then the "permittee shall proceed to expeditiously implement the physical changes to the source to enhance control of mercury emissions..." a determination required as part of the application process will instead be conducted over a several year period after the plant resumes operation. Control requirements for mercury should be established in the permit, not five years later.**

It is not possible to definitively determine whether additional controls measures are needed at the plant for mercury emissions in the absence of empirical testing or measurement. Certain general information provided in the application indicates that emissions of mercury will be well controlled, which is sufficient for issuance of the permit. However, the permit

requires this general information to be corroborated by actual, empirical data. Until this empirical data is gathered, which can only occur after the plant resumes operation and has completed shakedown, it is not possible to determine whether any additional control measures are needed at the plant for mercury emissions. It is also not possible to set an appropriate schedule for implementation of any operational or physical changes at the plant to better control mercury emissions.

In the event that actual testing and measurement shows that additional control measures are needed at the plant for mercury, the permit contains an appropriate schedule for evaluation and implementation of such measures given the current state of knowledge concerning mercury emissions from coke ovens. The permit provides a reasonable time (12 months from resumption of operation) to conduct the necessary sampling and analysis for mercury, given the complexity of analyses for mercury. If control measures specifically for mercury are required, the permit then provides a reasonable time (12 months) for Chicago Coke to evaluate and select such measures. While the permit does provide that this period of engineering analysis may be extended by 12 months, Chicago Coke must proceed with an initial set of additional control measures at the same time that it conducts any extended analysis. Thus additional control measures for mercury, if required, will begin to be implemented at the plant within two years after resumption of operation.

26. **The emission factors in the draft permit are different than the factors used in the Sources CAAPP permit and the application for this project. As the factors in the application are used to calculate the emission limits in Attachment 1, the factors in the draft permit should reflect those in the application.**

The Illinois EPA generally agrees with the commenter and the appropriate changes have been made to the emission factors in the permit. In addition, the Permittee is generally obligated to use a more accurate factor or emission rate should one become available.

27. **As a general matter, the nearly five pages of recordkeeping requirements are overly burdensome and unnecessary for these relatively simple units. These recordkeeping requirements should be streamlined to dramatically reduce the administrative burden imposed.**

The purpose of the recordkeeping requirements is to allow the Illinois EPA to accurately calculate the emissions from the emission units affected by the section at issue. The relevant section contains several provisions that are applicable to emissions during malfunction and breakdown. These provisions must be maintained if the source wishes to obtain the ability to operate during malfunction and breakdown of these units. Therefore, the recordkeeping requirements are neither overly burdensome nor unnecessary.

28. **Several facets of the recordkeeping requirements imposed throughout this permit would require the Permittee to utilize specific technical documents to support their recordkeeping calculations (e.g., material published by USEPA). This practice improperly precludes the use of alternative valid sources of information that might be**

preferable. These requirements limiting reference to specific subsets of technical materials should be deleted.

As a general matter, a site specific emission factor established through emissions testing or other means is a preferred method for determining compliance with applicable regulatory or permit requirements. However in the absence of a site-specific emission factor, the Illinois EPA often relies on USEPA emissions factors, as it has done in this instance.

29. **The permitted facility is not a "new" facility that is under construction, but rather is a historic coke plant that will be restarted. Because the Permittee may not have installed the dust collection equipment at issue, it may not have all of the "supporting documentation" associated with this equipment. To recognize this fact, these provisions should only require the retention of "any available" supporting documentation for existing equipment.**

The information required to be maintained by the relevant permit conditions is essential to the operation of the dust collection equipment in accordance with good operating practices. The Illinois EPA has not been prescriptive in what supporting documentation must be maintained, however, some level of supporting information is clearly necessary to establish or support the performance specifications for filter material, the maximum design particulate matter emissions and the maximum operating capacity.

30. **Permittee should have the flexibility to keep records to demonstrate compliance with its annual limits based on emission units or groups of similar emission units or fuel use, or coal throughput, or any other reasonable method. The groupings in Attachment 1 should be deleted and should not be enforceable emission limits or a reference point for recordkeeping.**

The provisions in the permit generally addressed by this comment are necessary for practical enforceability of permit conditions, as specifically addressed by USEPA policy and guidance related to practical enforceability of emission limits.

31. **The permit should acknowledge that records and logs can be readily accessible in an electronic form even when they may not be located at the source. Further, some records and plans are best controlled when they are not able to be modified or revised on site, but made available via an intranet to a computer on site when access is needed. Paper records should not be required in response to an agency request if the request can more efficiently be fulfilled by transferring the data requested in a portable electronic format.**

The permit would not preclude electronic records or logs so long as they are readily accessible at the source. However, paper records may be required during the course of a source inspection.

32. **As there are no applicable hourly limits for NO_x and CO emissions from the combustion stack, there is no need for performance testing of these pollutants.**

Therefore, performance testing is misguided and the emission factors used to establish baseline emissions should continue to be used to demonstrate compliance with the annual Attachment 1 limits after the restart.

The plant is subject to limitations on annual emissions of NOx and CO, which necessitates compliance procedures to confirm compliance with those limitations. As the combustion stack is a significant source of NO_x and CO emissions, it is appropriate to periodically perform stack tests to confirm the rates of emissions from the combustion stack, as they are a factor in the determinations of actual emissions.

33. **The draft permit does not require testing of the mercury content of coal used at the plant or set limits on the mercury content. As a result, changes in mercury emissions from use of different coal than that used during the initial 6-month assessment period would not be identified.**

The permit requires sampling and analysis of the coal supply for mercury content. (Refer to Condition 2.1.9(a)(ii).)

34. **Why does the permit paraphrase certain regulations rather than copying the specific regulation verbatim?**

It is not appropriate to include in the permit all regulations verbatim. Furthermore, if a lengthy regulation or group of regulations can be referenced and followed by a short summary, the Illinois EPA has done so. This method of permit writing gives the Permittee and other persons the appropriate reference for additional details and provides a summary of what is required. As the detailed regulations govern, it is important that parties be familiar with and follow those regulations.

35. **When a federal rule such as the NESHAP contains references to the Administrator or reviewing authority, the corresponding permit condition should contain the same reference, rather than USEPA and Illinois EPA.**

This comment fails to recognize the reasons why the Illinois EPA did not simply restate verbatim the federal regulation at issue. The Illinois EPA did not repeat the relevant federal text as it wanted to make clear which agency or agencies possessed particular responsibilities. Further, regarding reporting issues, it wanted to make clear that federal reports should be submitted to both agencies in certain specified instances

36. **The permit conditions which define what affected units are (e.g., Condition 2.1.3(a), 2.2.3(a), 2.3.3(a), etc.) appear to inadvertently expand the scope of affected units to include other sources in the broad descriptions. Furthermore, if the units are not subject to any applicable rules, such as the NESHAP, they should not be included in the permit except for a facility wide emissions cap.**

An affected unit does not necessarily include *all* equipment mentioned in the Description section as the Description is intended to be a broad overview of the units, how they operate and how they interact with other components.

Because the rebuild of the coke oven battery affects many operations at the plant, the Illinois EPA must evaluate each unit at the plant to ensure that a significant emissions increase has not occurred. This evaluation may involve new emission limitations and other requirements that make the limits and conditions enforceable as a practical matter.

37. **Why does the permit appear to expand the NSPS and NESHAP applicability and compliance obligations to units not subject to the these federal provisions (e.g., startup, shutdown and malfunction plan for the transfer of collected dust from the pushing baghouse).**

The permit does not expand the NESHAP or NSPS obligations. However, it does utilize the requirements described in the NESHAP for affected units that are not subject to these federal provisions. Rather than develop different and potentially conflicting requirements for the units not subject to the NESHAP or NSPS, the permit "borrows" the terms of the NESHAP and NSPS.

38. **Why does the Permit require compliance with 40 CFR Part 63 Subpart CCCCC now when the compliance date is not until April 14, 2006?**

Since the plant is currently not in operation and given the nature of coke ovens, it is appropriate to implement the necessary control measures required by the NESHAP as part of the padup of the battery. The permit does clarify (at Condition 2.1.3(b)(ii)(C)) that a violation of a particular permit condition would not constitute a violation of the NESHAP until after the NESHAP compliance date.

39. **Many of the limits in the draft permit go well beyond what is necessary to ensure that the plant restart does not trigger New Source Review requirements under PSD, 40 CFR 52.21, or MSSCAM, 35 IAC Part 203. In particular, the draft permit would improperly limit the annual emissions of individual units and groups of units (Attachment 1), which would unnecessarily restrict operational flexibility. For each pollutant, the permit should set a single annual limit, which reflects the baseline actual emissions plus a less than significant increase in emissions. The plant would then have the flexibility to operate in any configuration that assures compliance with that annual limit.**

The provisions in the permit generally addressed by this comment are necessary for practical enforceability of permit conditions, as specifically addressed by USEPA policy and guidance related to practical enforceability of emission limits.

40. **While coal consumption should be one option for demonstrating compliance with emission limitations and to ensure that insignificant sources are not operating significantly above historic levels, it should not be the only option. An increase in coal**

consumed does not always result in an increase in emissions. If the plant is able to improve the process so that coal use and coke production increase without increasing annual emissions, the permit should not create an unnecessary obstacle to increasing production efficiency. The permit should allow the plant the opportunity to submit emission calculation protocols to the Illinois EPA, which after review could supplement the coal usage approach without reopening the permit. This would provide the plant with maximum flexibility in demonstrating compliance with its annual emission limits. Short-term coal usage limits unnecessarily restrict operational flexibility.

With the exception of the short-term coal usage limit, the extent of operational flexibility requested by this comment for the plant is not available. The short term and the annual coal limitations are to ensure that the plant does not exceed the emission limits in the permit, for which compliance will be calculated based on the amount of coal used at the plant. In its application, Chicago Coke has not demonstrated any change in the emission factors reflected in the permit based on the amount of coal charged to the battery.

Additional operational flexibility has been added to the permit for the short-term limit by changing the daily limit averaged weekly to a daily limit averaged monthly.

41. **The permit should afford operational flexibility with respect to the units subject to the Benzene Waste Operations NESHAP (40 CFR Part 61, Subpart FF), specifically the plant should be allowed have any level of annual benzene quantity without revision to this construction permit if it complies with the requirements of Subpart FF.**

The flexibility requested has not been included in the issued permit. A new or revised permit may be required where the annual benzene quantity fall outside the range authorized in the permit. Specifically, reducing the annual benzene quantity below 1 Mg/year would likely require physical changes for which a construction permit may be required. Likewise, if the plant were to achieve an annual benzene quantity greater than 10 Mg/yr, more stringent control requirements would be required triggered again requiring a construction permit.

42. **The permit should specify that the plant is an "existing participating source" for the purposes of the Emissions Reduction Market Trading System (ERMS), 35 IAC Part 205, and will receive seasonal allocation of allotment trading units (ATUs) based on its baseline emissions under ERMS. While the plant's CAAPP permit is the appropriate place for further details about ERMS, this construction permit is an appropriate place for the determination that the plant is an existing source under ERMS. In addition, the construction permit should not include the obligation to hold ATUs and other substantive requirements of the ERMS without also including relevant provisions of the ERMS for a participating source, especially provisions for seasonal allocations of ATUs.**

The status of the plant under ERMS, i.e., an existing participating source, is already addressed in the source's existing CAAPP permit. As a "participating source," all of the

obligations of the ERMS program are already applicable to the source. This construction permit can not change this.

43. **Condition 1.6.b should be revised to specify that implementation of the inspections, testing, monitoring and recordkeeping begins when the units resume *normal* operation.**

This change will not be made. It is appropriate for implementation of inspections, testing, monitoring and recordkeeping to commence immediately upon resumption of operation. First, tying the specified provisions to startup of a unit provides a clear indication of the date on which the requirements are triggered. Second, in order to have complete and accurate information for compliance status with applicable emissions standards and limits, it is imperative that the referenced requirements commence with the startup of a unit, not after debugging, not after reaching typical operating mode, and not after reaching maximum operating mode.

44. **Condition 1.3.3 should state that Boiler 4B has been allocated 60 tons of NO_x Allowances under the NO_x Trading Program. This is important because 35 IAC Part 217, Appendix E (where the allocations of NO_x Allowances for Non-Electrical Generating Unit are listed), does not include an allocation for Boiler 4 but instead indicates that the allocation will be entered when USEPA makes an allocation to Boiler 4B. USEPA has made this allocation in 2001, allocating 60 tons of NO_x Allowances to Boiler 4B (66 FR 56452). This condition is an appropriate place to record this allocation for Boiler 4B.**

While an allocation of NO_x allowances has been made for Boiler 4B (see also Condition 2.4.3(a)), the requested change cannot be made because it is unclear whether LTV has transferred this allocation over to Chicago Coke.

45. **180 days after resuming operation of the coke plant operations is not enough time to submit a complete application to amend the CAAPP permit to incorporate new requirements established by this permit.**

The permit has been revised to extend the time to submit the application to amend the CAAPP from 180 days to 270 days.

46. **These provisions would require the Permittee to submit both a test plan to the Illinois EPA 60 days in advance of testing and a separate notification of intent to test at least 30 days in advance of testing. These requirements are duplicative. Rather than requiring two separate notifications, the Permittee should be permitted (at its option) to submit a single notification specifying the testing plan that will be used and the date such testing will occur.**

This comment reflects a flawed understanding of the two conditions. These requirements are not duplicative. Rather, not later than 60 days in advance of a test event, the source must submit a test plan for Illinois EPA review. Not later than 30 days in advance of the

test event, the source must submit notification of the expected date of testing. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test.

47. **Condition 1.8.1(a) of the permit does not define "deviations" sufficiently for the Permittee to know when a reporting requirement is triggered for Section 1. Also, the reporting obligation should be 30 days after *discovery* of a defined "deviation" to account for events that may not immediately indicate a deviation has occurred. The permit should also define the proper contact person and method for notifying Illinois EPA.**

Deviations, which are periods of time when the actual operations differ from the permit terms, are self explanatory and do not require a definition in the permit. The word "discovery" will not be added as it is the deviation event itself that triggers the reporting obligation, not the "discovery" of the event. The permit has been revised to include the applicable reporting addresses.

48. **Condition 1.8.2 of the permit does not contain sufficient information for the Permittee to determine its compliance obligation. The term references an annual emission report pursuant to 35 IAC Part 254, but it does not direct the Permittee to submit one, nor does the permit indicate where to submit the report or when the report is due**

The permit has been clarified to direct the Permittee to submit an annual emissions report by a specific date to a specific location.

49. **Condition 1.6(a) inappropriately requires submittal of required reports for equipment that is not operating. The reporting requirements should become effective when the equipment starts operating.**

The change will not be made. Some reports are required by specific programs that apply to the facility (ERMS, NESHAP, NSPS, CAAPP, etc.) and other reports are required to allow the Illinois EPA to monitor progress during the pad-up rebuild.

50. **What kind of hazardous air pollutants will the plant emit? What are "coke oven emissions?"**

The coke oven battery would emit a hazardous air pollutant known as coke oven emissions. Benzene, toluene, xylenes, cyanide compounds, naphthalene, phenol, and polycyclic organic matter (POM) are constituents in coke oven emissions. The byproducts plant would emit benzene, POM, cyanides, phenols, and light oils and aromatics.

51. **What heavy metals are emitted and in what quantities?**

The heavy metals present in coal in trace amounts, including arsenic, cadmium and nickel, are present in coke oven emissions at levels that are generally measured in fractions of parts per million.

52. **There is not a legal basis for the requirements in the draft permit related to mercury emissions, including requirements for sampling and analysis of coke oven gas and coal for mercury content and requirements to enhance control of mercury, if more than 10 percent of the mercury in the coal is lost to the environment. It is expected that the plant, like other by-product recovery coke plants, will emit an insignificant amount of mercury. With the expected emissions of mercury being as low as few pounds per year, measurements become highly variable and unreliable, making it impractical to require quantification of mercury reduction as a permit requirement.**

It is unquestioned that the Illinois EPA has legal authority, pursuant to Section 39(a) of the Environmental Protection Act and the Pollution Control Board regulations at 35 IAC 201.156, to place conditions in a permit that require a source to take reasonable measures to quantify emissions of regulated pollutants, including mercury. While there will likely be technical challenges to quantifying mercury emissions from the plant, the conditions of the permit are crafted to address these challenges. The conditions do not presume that the current analytical methods will immediately be able to produce reliable data for mercury emissions. They also allow adequate time for methods to be adapted and refined so that the level of mercury emissions from the plant can be accurately determined.

The Illinois EPA also believes that it has the authority to impose the requirements for control of mercury contained in the permit. In particular, these control requirements reasonably address emissions of a pollutant of significant concern to the environment that are not otherwise subject to explicit standards, to assure that the actual emissions of the pollutant are minimized by good air control practices and are consistent with representations made in the application. The permit would only require Chicago Coke to take significant action to further control emissions of mercury if emissions are not inherently well-controlled by the plant, contrary to the representation made by Chicago Coke in its application.

53. **Since mercury would be emitted from the plant, why is there no limit on mercury emissions?**

At this time, there is not adequate information on the levels of mercury emissions from coke oven batteries to set a quantitative limit. However, information that USEPA has assembled on mercury emissions shows that by-product recovery coke oven batteries are not significant sources of mercury emissions, presumably because the byproduct recovery operations are also effective in controlling mercury emissions. Accordingly, as there is no legal requirement to set a mercury limit, the draft does not do so. There is no legal requirement to set a mercury limit. Instead, mercury emissions of the plant are addressed qualitatively with a requirement that the plant control at least 90 percent of mercury and if it doesn't achieve 90 percent control of mercury emissions that provision for corrective or mitigation actions come into play.

54. **How would one know if the level of mercury being emitted from the plant is safe or unsafe?**

There is adequate information to conclude that mercury emissions from this plant or sources generally are not a direct threat to air quality or public health. The environmental concern for mercury is consumption of mercury-contaminated foods, that is, certain fish that may contain relatively high levels of mercury. This contamination is the result of the overall loading of mercury to the environment on from many sources on both a national and international basis and the "bio-magnification" of mercury levels as one moves up the food chain.

At the present time, public health officials generally recommend that people, because of potential health affects of mercury, be moderate in the amount of certain types of fish that they eat. For example, the Illinois Department of Public Health issues specific advisories for how frequently predatory fish caught in different bodies of water in Illinois should be eaten. More stringent advisories are set for young children and women who are or may become pregnant, to protect the unborn. At the same time, the public is reminded that fish is generally an excellent source of protein and has an appropriate place in a balanced diet.

55. **This project is described as a minor modification. How can Chicago Coke restart this coke oven battery as a state-of-the-art plant with only minor modifications?**

The classification of this project as a "minor modification" does not refer to the amount of work that Chicago Coke must undertake to restart this coke oven battery. Rather, this is a classification under applicable regulations, related to the changes in emissions from the project comparing future emissions to the historic emissions from the plant. In particular, because the project, as restricted by the construction permit, will involve at most increases in emissions that are not significant compared to the old operations at the plant, it is classified as a minor modification.

56. **What will be the effect of the emissions from the plant on air quality, the quality of life in the neighborhood and the health of the children and elderly in the area?**

Emissions from the plant should have no adverse effect on air quality, the quality of life in the neighborhood or the health of the children and elderly in the area. Air quality standards are set by USEPA to be protective of sensitive portions of the general population including both the young and the old. The application was reviewed against the requirements that were promulgated to ensure the air quality standards are met. The permit incorporates provisions that will ensure compliance with these air quality standards will be met.

57. **Did the Illinois EPA require Chicago Coke to perform air quality modeling or did the Illinois EPA do its own modeling? The Illinois EPA should be requiring comprehensive modeling to ensure that pollutants that come from Chicago Coke will not degrade air quality in this community or in other communities.**

For a project of this type, air modeling is not required. However, the Illinois EPA did its own modeling. The Illinois EPA conducted dispersion modeling to assess the impacts of coke oven emissions, arsenic, benzene, cadmium and nickel from the source on the

community. From the modeling, the Illinois EPA concluded that the plant is not likely to pose a significant risk to human health. Specifically, the risks posed by emission from the coke ovens (80 in a million) are significantly below the acceptable risk level established by the USEPA (200 in a million). In fact, the actual risk is likely a third of the modeled value as the modeling is based on the maximum emissions that could be emitted under the construction permit whereas USEPA has indicated that coke ovens typically emit only 80% of their allowable emissions levels.

Additionally, the Illinois EPA conducted SO_2 and NO_x dispersion modeling. Such modeling indicated that the emissions from the source would not cause any NAAQS violations.

Further, the plant is in an area that was already designated nonattainment for particulate matter, measured as PM10, prior to the recent action by USEPA with respect to the standard for particulate matter expressed as PM2.5. Ambient monitoring data from 2000 through 2002 was relied upon for the designations for PM2.5, so that the past emissions of the plant were "addressed" in that data.

58. **I request that the Illinois EPA analyze how the air quality impacts of the plant would be altered if best available technology and lowest achievable emissions rates were imposed on the plant.**

The comment calls for an analysis of air quality impacts from a hypothetical scenario. No legal or technical basis for such analysis exists. However, the Illinois EPA did perform an analysis of the air quality impacts of the plant as proposed and this analysis showed no violation of the NAAQS for SO_2.

59. **Why is it that the modified plant would actually emit more than the old plant? This is a worse performer than the plant it is replacing.**

The permit would allow an insignificant increase in emissions from the plant. This is because the permit is based on historical operation for the period of time before the plant shut down, at which time the plant was not operating at maximum capacity levels.

60. **All of the permitted levels of annual emissions would be very close, within a half a ton, of the thresholds for a major modification. If the plant emitted much more, it would be considered a major modification.**

Although it is true that the emission rates are set close to the significance thresholds, nonetheless, these rates are below the significance thresholds and thus legally and technically appropriate. In the event the significance thresholds are exceeded, appropriate enforcement action would be initiated.

61. **What is BACT for recovery coke plants? I request that the Illinois EPA do a BACT determination and answer this question in the Responsiveness Summary.**

The Illinois EPA cannot in this instance articulate what would constitute BACT for this recovery coke plant. This is because the applicant was not obligated to submit a BACT analysis as the project is neither a major modification nor a new major source. The Illinois EPA does not perform unilateral BACT analyses, particularly where there is no regulatory basis for such BACT analysis.

62. **Would this proposal be considered BACT (if the project were major)? Are there other technologies that would have less emissions? Could there be a better technology?**

There are two types of coke plants. There are recovery coke plants and nonrecovery coke plants. The type of plant at issue, is a recovery-type coke plant. At this juncture, the Illinois EPA believes there can be incremental improvements in how it is operated and maintained, but it is fundamentally constrained by the fact it is a recovery-type coke plant. However, many of the requirements in the permit exceed MACT or are BACT-like.

63. **If this plant were treated as a major new source, an entirely different kind of permitting would take place that would be much more protective. This plant would have to meet the standards for its emissions equivalent to the best performing plant anywhere in this country. In addition, if this project were determined to be a major new source by the Illinois EPA, Chicago Coke would have to acquire emission offsets from existing sources, so that there would actually be cleaner air with the restart of the plant.**

This source is not considered a new major source because the source was not permanently shut down. In particular, the source made considerable efforts when operations were temporarily discontinued to ensure the minimum effort and cost of resuming operations at the facility. These efforts included, but were not limited to, operating the coke oven battery in a hot idle mode for a period of time, maintaining and not dismantling or demolishing equipment, and preserving the operating permit. These efforts support the intent of the Permittee and its predecessors to resume operations at this facility.

64. **If it was determined that the plant was major, then we could take it to an independent board to decide which is best available control technology for this plant.**

The comment correctly points out that construction permits issued under the PSD program (new major sources or major modifications of existing major sources for PSD pollutants) are appealable to the Environmental Appeals Board.

65. **This project is in an area that USEPA recently designated as nonattainment for the PM2.5 air quality standards. This alters how the net change in PM2.5 emissions should be calculated for the project, compared to the emissions of the former LTV plant. According to 35 IAC 203.208(a), for the past emissions of the plant to be available for the netting exercise, the emissions must be contemporaneous and "...must also occur after either April 24, 1979, or the date the area is designated by the**

United States Environmental Protection Agency as a non-attainment area for the pollutant, whichever is most recent." However, emissions when LTV last operated the plant occurred before the USEPA made its nonattainment designations for PM 2.5. Consequently, those PM 2.5 emissions are not contemporaneous with the future operation of the plant. There is no indication that the Illinois EPA correctly analyzed the contemporaneous time period for PM 2.5 emissions related to the new nonattainment designations.

This comment is based upon a flawed understanding of the proposed project and its circumstances. The project was evaluated as a possible major modification, considering the consequences of the project for emissions, without reliance on or consideration of other unrelated decreases in emissions as occurs with netting. When reviewing a proposed project to determine whether it is a major modification for a pollutant, the first step is generally to determine whether the project would result in a significant increase in emissions. A netting exercise is a possible second step in the review of a project, which can be pursued if a proposed project would result in a significant increase in emissions. With a netting exercise, the applicant can show that, notwithstanding the fact that a project would result in a significant increase in emissions, the project would still not result in a significant net increase in emissions, so as to not be considered a major modification. This second step was not pursued for this project because the project will not cause a significant increase in emissions.

In addition, the plant is in an area that was already designated nonattainment for particulate matter, measured as PM_{10}, prior to the recent action by USEPA with respect to the standard for particulate matter expressed as $PM_{2.5}$. Ambient monitoring data from 2000 through 2002 was relied upon for the designations for $PM_{2.5}$, so that the past emissions of the plant were "addressed" in that data.

66. **In the absence of any contemporaneous decrease in emissions, and in light of the extensive physical changes to the plant, the Illinois EPA must determine if any emissions from the project should be regarded as significant for purposes of PM2.5. There is USEPA guidance that can be used for this purpose. In the PSD program, USEPA defines criteria for significant net emissions increases for various pollutants. (Refer to 40 CFR 52.21(b)(23)(i).) However, for a pollutant like PM 2.5, which is subject to regulation under PSD but for which a significance threshold is not set, the default threshold is "any emissions rate." (Refer to 40 CFR 52.21(b)(23)(ii).) Under the USEPA's Emission Offset Interpretative Ruling, 40 CFR Part 51, Appendix S, which addresses proposed projects in areas designated nonattainment, the "particulate matter" significant level set by USEPA for a net emissions increase or the potential emissions of a source of 25 tons per year.**

This comment does not provide legal support to evaluate the change in PM2.5 emissions with this project in a way that is different than the way it was evaluated. The emissions of PM2.5 from the plant are equal to or less than the emissions of PM10 from the plant, as PM2.5 is a subset of PM10. Accordingly, a demonstration that this project is not significant for particulate matter emissions, measured as PM10, also assures that this project is not

significant for particulate matter emissions, measured as PM2.5. In this regard, a reasonable and legally justifiable criterion for a significant emission increase for PM2.5 is 15 tons/year, identical to the formally adopted criterion for PM10. Alternatively, the relevant threshold should be the higher threshold contained in 40 CFR Part 51, Appendix S, i.e., an increase of 25 tons/year.

The PSD rules do not provide relevant guidance on this subject, as they are applicable for attainment pollutants, not nonattainment pollutants. They also do not support application of an "any increase" criterion to this project, as this stringent criterion was established in the PSD program by rulemaking. Moreover, assuming for purposes of argument that the PSD rules could be relied upon for the proposed project, it would also be appropriate to rely on other relevant elements of the PSD rules for proposed modifications. This would include the provisions of the PSD rules that allow a source to determine whether a project is a major modification, i.e., will be accompanied by a significant increase in emissions, based on the difference between the past actual emissions and projected future actual emissions after the project, rather than potential emissions after the project.

67. **In the present case, the plant has a potential to emit more than 100 tons per year of both "particulate matter" and PM10. There is no PM2.5 emissions estimate or limitation in the permit. In order to conduct adequate permitting, Illinois EPA must determine – in the absence of any contemporaneous emissions decrease and in light of the major physical reconstruction of the plant – if this plant will have any PM2.5 emissions and, if so, if these emissions exceed the appropriate significance level. If so, the project is a major source in a PM2.5 non-attainment area and should be permitted accordingly.**

A recent letter from Steve Rothblatt, Director of the Air and Radiation Branch, USEPA Region 5, to the Indiana Department of Environmental Management, underscores the immediate effect of the new nonattainment designations. Mr. Rothblatt states:

> **The nonattainment NSR requirements apply to newly designated nonattainment areas upon the effective date of the designation. After this effective date, permits issued in these areas must satisfy the part D nonattainment NSR requirements, as required by 40 CFR 52.24(k) and 40 CFR Part 51, Appendix S...**

The present permit review and the draft permit are legally inadequate because there is no indication that the effects of the new PM2.5 nonattainment designations have been considered. In light of the reconstruction of the plant, the lack of contemporaneous emission decreases, the potential emissions of the plant, and the New Source Review obligations now imposed on Illinois EPA, a detailed applicability determination is required for this project due to the PM2.5 nonattainment designations. If this determination is not performed or not performed correctly, it would be a basis for challenging the resulting permit decision.

Emissions of PM2.5 from the plant have been adequately and appropriately addressed, as PM10 emissions have been addressed. The relevant guidance from USEPA on the subject of PM2.5 emissions indicates that it is appropriate to use particulate matter emissions, measured as PM10, as a surrogate for particulate matter emissions, measured as PM2.5. It is also appropriate to continue to use 15 tons/year as the applicable threshold for a significant emissions increase. Relying on this guidance, the Illinois EPA assumed that emissions of PM10 and PM2.5 from the plant are identical.

Incidentally, Mr. Rothblatt's letter addressed the effect of the recent nonattainment designations for the 8-hour ozone standard. In addition, as Illinois' New Source Review rules differ from Indiana's, certain details in Mr. Rothblatt's letter, e.g., the reference to 40 CFR Part 51, Appendix S, are not applicable to Illinois.

68. **The analysis for possible applicability of New Source Review to this project for emissions of PM2.5 should account for the plant's emissions of both filterable and condensable particulate.**

The Illinois EPA's analysis for possible applicability of New Source Review for emissions of PM10, as also applicable for emissions of PM2.5, has been updated to also address emissions of condensable particulate matter. Consideration of condensable particulate adds an estimated 3.5 tons/year to the permitted increase in annual emissions of PM10, so that the project is still not a major modification for PM10 or PM2.5.

69. **For the 8-hour ozone standard, past volatile organic material (VOM) and nitrogen oxides (NOx) emissions from the plant cannot be used in making the net emissions determination for the proposed project. Emissions from the plant last occurred before USEPA designated nonattainment areas for the 8-hour ozone standard. The plant is in the greater Chicago area, an area that is now designated as moderate nonattainment for the 8-hour ozone standard. This designation alters how the net emissions changes from the proposed project must be calculated. According to 35 IAC 203.208(a), for the past emissions of the plant to be available for the netting exercise, the emissions must be contemporaneous and "...must also occur after either April 24, 1979, or the date the area is designated by the United States Environmental Protection Agency as a non-attainment area for the pollutant, whichever is most recent." Although this provision does not apply in serious and severe ozone nonattainment areas, it does apply for this project, because the area is moderate nonattainment for the 8-hour ozone standard.**

No emissions from the plant have occurred after the USEPA made the 8-hour ozone nonattainment designation for the area. Consequently, VOM and NOx emissions from the past operation of the plant are not contemporaneous with this project. There is no indication in the draft permit or related materials that Illinois EPA correctly analyzed the contemporaneous period for emissions related to this new nonattainment designation.

In the absence of any contemporaneous decrease in emissions, and in light of the major physical changes to the plant, the Illinois EPA must determine if VOM and NOx emissions from this project should be regarded as significant. Under 35 IAC 203.206(b)(3)(A), in a moderate nonattainment area for ozone, a major stationary source is a stationary source which emits or has the potential to emit 100 tons per year of NOx. Consequently, in order to conduct a legally adequate permitting, the Illinois EPA must conclude – in the absence of any contemporaneous emissions decrease and in light of the extensive physical reconstruction of the plant – that the plant's NOx emissions greatly exceed the significance level. Consequently, the plant is a major new source for NOx in an ozone nonattainment area and should be permitted accordingly.

This comment is based on a flawed evaluation. As previously discussed for emissions of PM2.5, this project must be and was reviewed as a modification to the plant, under 35 IAC 203.207. The result of this review is that this project is not a major modification because it does not result in a significant increase in emissions. This project is not one for which a netting exercise under 35 IAC 203.208 is required, to show that there is not a significant net emissions increase.

In addition, this comment ignores the fact that the greater Chicago Area was already nonattainment for ozone, in terms of the 1-hour ozone standard, before the area was designated nonattainment for the 8-hour standard. In addition, ambient monitoring data from 2000 through 2002 was relied upon for the designations for the 8-hour ozone standard and the past emissions of the plant were "addressed" in that data.

70. **For purposes of the 1-hour ozone designation, it does not appear Illinois EPA used its own guidance for calculating net emissions to determine if the project's VOM and NOx emissions are significant. In making its calculations, the Illinois EPA relies on the last two years of the plant's operations, which ended in December 2001. However, in its own "Assistance Document for Nonattainment Area New Source Review and Prevention of Significant Deterioration", available at www.epa.state.il.us/air/new-source-review/index.html, Illinois EPA indicates that any contemporaneous period in a severe ozone non-attainment area is the "beginning of calendar year, which is 4 calendar years prior to the calendar year in which the proposed source project is scheduled to commence operation." See – Flow Chart 6 "Contemporaneous Period Determination for Severe Ozone Nonattainment Area."** ***Because of formatting difficulties in printing this document, I am formally requesting the Illinois EPA to place a true and accurate copy of this entire document in the record.***

In order for the plant's calendar year 2000 emissions to be contemporaneous under Illinois EPA's published guidance, Chicago Coke would have to commence operations – not merely begin construction – in calendar year 2005. Similarly, in order for the plant's calendar 2001 emissions to be contemporaneous, Chicago Coke must commence operations in calendar year 2006. Because plant's emissions following 2001 are effectively zero, and because it is virtually impossible for Chicago Coke to commence operations in 2005 and highly unlikely it will in 2006, it appears that Illinois EPA acted against its own guidance in allowing the plant's 2000 and 2001

emissions to be regarded as contemporaneous. For this reason, and in light of pad-up reconstruction of the coke oven battery, the Illinois EPA should perform a new applicability analysis for the 1-hour ozone designation using the contemporaneous period as described in this comment. Unless this applicability determination is performed and performed correctly, this could form a basis for challenging the resulting permit decision.

The change in VOM emissions associated with this project is properly calculated, as related to the 1-hour ozone standard. The change in VOM emissions has been determined by comparing the actual VOM emissions of the plant when it last operated and the potential emissions of the plant in the future, as limited by the permit. For this purpose, the relevant question is the level of actual emissions of the plant when it last operated, i.e., the average annual emissions during 2000 and 2001. As noted by the comment, these were the years used to assess the past emissions of VOM from the plant, and formed the basis for the determination that this project would not result in a significant increase in VOM emissions.

This comment misapplies the cited guidance, which addresses a different aspect of applicability of nonattainment New Source Review in serious and severe ozone nonattainment areas, as relevant to emissions of VOM and the 1-hour ozone standard. For this purpose, when determining whether a proposed project would be a major modification, in addition to determining the change in emissions accompanying the particular project, one must also consider the increases in emissions from other contemporaneous projects at the source, as addressed by the cited guidance. However, there have been no other projects with contemporaneous increases in VOM emissions at the plant.

With respect to emissions of NOx, the guidance cited in this comment has no relevance. This is because in the Greater Chicago area, emissions of NOx are not regulated under nonattainment New Source Review for purposes of the 1-hour ozone standard.

71. **The draft permit is inadequate because the plant's future potential emissions have not been determined in accordance with applicable regulatory requirements. Instead, for each regulated pollutant, the future potential to emit has been determined as the plant's historic actual emissions plus the significant rate threshold minus one-half ton. With this approach, the draft permit would allow the plant to emit 24.5 tons per year (TPY) more PM including 14.5 TPY more PM10, 39.5 TPY more S02, 24.5 TPY more VOM, 39.5 TPY more NOX and 99.5 TPY more CO than the plant previously emitted, while at the same time avoiding New Source Review. These emission increases occur despite several enhancements that Chicago Coke and the Illinois EPA assert will improve the plant's environmental performance. Furthermore, the draft permit limits the amount of coal that can be charged to the battery to "only slightly more than historical levels." At no point does the Illinois EPA relate the plant's potential to emit to the emission factors for individual units.**

Applicable regulations define "potential to emit" as:

the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of fuel combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. 40 CFR 51.165(a)(1)(iii) and 52.21(b)(4),

The Illinois EPA does not assert there is any rational relationship between limits in the draft permit for any regulated pollutant and the physical and operational design of the plant and the emission factors for its constituent units. The resulting "blanket emission limits" are unrelated to the factors that should be evaluated in establishing specific emission rates and a corresponding potential to emit, and are accordingly legally inadequate. See United States v. Louisiana-Pacific Corporation, 628 F. Supp. 1122 (D. Colo. Oct 30, 1987) and 682 F. Supp. 1141 (D. Colo. March 22, 1988).

The approach in the permit to limiting the plant's emissions is consistent with regulatory requirements. As noted in the comment, the permit for this project has been developed to prevent significant increases in emissions from the plant. The permit also contains an operational limitation on the capacity of the plant, i.e., a limitation on the amount of coal processed by the plant. In this regard, as set forth in the definition of potential emissions, operational restrictions, such as restrictions on the amount of material processed by a source, must be considered in calculating the potential emissions of a source. The limitation on the coal usage of the plant acts to restrict emissions from the plant both the plant as a whole and the individual units at the plant. In addition, the permit contains provisions setting forth applicable emission factors for different units at the plant as necessary to determine future emissions of the plant. In summary, the permit is appropriately developed to constrain the future emissions of the plant.

The fact that the improvements being made to the plant have not resulted in reductions in the permitted emissions of the plant, as compared to its past actual emissions, is not relevant to the future potential emissions of the plant, as set by the permit. It also does not demonstrate that these improvements will not act to reduce the actual emissions of the plant. Chicago Coke has applied for a permit that would allow use of more coal than was used at the plant in the baseline time period. This is because the plant was operating below its "design capacity" at that time and Chicago Coke does not want to be constrained to that level of operation. As demonstrated in the application, some increase in operation above that historical level is possible without a significant increase in emissions. Chicago Coke is also making changes to the plant to improve its environmental performance. These improvements facilitate the increase in operation. They also increase Chicago Coke's ability to operate with a reliable compliance margin, so as to consistently comply with the emissions and operational limitations set in the permit, which reflect past actual levels of performance of the plant in the past, which are now made enforceable.

72. **The emissions limitations contained in the draft permit, as they are based on past actual emissions plus major source threshold minus one-half ton, for every regulated**

pollutant, are confounding because Chicago Coke proposes several changes that should result in improvements in the environmental performance of the plant. These include a pad-up rebuild of the battery, the installation of the PROVEN system on the battery, the replacement of doors and lids, and the installation of low-NOx burners. Despite these enhancements and coal charging limitations, the draft permit would allow the plant to emit more than it actually emitted in the past. This confounding result is the manifestation of an inadequate review that fails to characterize the plant's potential to emit based on any technical, engineering or empirical basis as mandated by regulation.

As already discussed, this is a logical consequence of the permitting process for this project. As a consequence of this project, the levels of control voluntarily achieved in the past, when the plant was operating in compliance with a margin of safety, are now generally becoming enforceable, as future emissions from the plant cannot increase significantly above past actual levels of emissions.

73. This project is a major modification because it follows a prolonged idle period of the plant. LTV shut down this plant in December 2001 and ended natural gas firing for the coke oven battery, putting the plant into cold idle, in February 2002. At that time, LTV was in bankruptcy, and there is no indication it intended to operate the plant. The current owners bought the plant in December 2002, but did not apply for a permit to restart the plant until January 22, 2004, almost two years after LTV shut down the plant. According to the draft permit, the Chicago Coke submitted the current application on May 3, 2004, more than two years after the plant was placed in cold idle.

By May 2004, both Illinois EPA and Chicago Coke had every reason to know that under longstanding USEPA policy, any attempt to restart the plant would be subject to new source permitting. Under these circumstances, the USEPA maintains a policy that "temporary shutdowns are considered to be of two-year duration or less. [This policy] also establishes that the credit which can be given for offset purposes must be the emissions of the last one or two year period. Thus, a source which has been shut down for more than that length of time could not be used for offset even though it might physically be capable of operating. It then follows that a source which has not operated for in excess of two years and is not in the air quality baseline would be considered a new source if operation is commenced." (Letter from William Spratlin, Chief, Air Support Branch, Air and Hazardous Materials Division, USEPA to Harvey Shell, October 9, 1979).

Reiterated in 1987, "A shutdown lasting for two years or more...should be presumed permanent. The owner or operator proposing to reopen the source would have the burden of showing that the shutdown was not permanent, and of overcoming any presumption that it was." (Memo from John Seitz, Director Stationary Source Compliance Division, Office of Air Quality Planning and Standards, USEPA, to David Howekamp, May 27, 1987, ALAMC Exhibit F). In light of the fact that more than three years have elapsed, the presumption should be that the shutdown was

permanent, and that any new operations should be subject to New Source Review. This is especially true in light of the physical reconstruction that is now necessary at the coke oven battery. In light of the elapsing of time, the lengthy idling of the plant, the replacement of major plant components and emission increases, the project should be considered construction of a major new source.

The project meets the USEPA guidance and policy cited in this comments. The first element of this guidance is the actions that have occurred with respect to the source. The information submitted by Chicago Coke indicates that reasonable actions were taken to preserve the plant, especially given the particular circumstances of LTV as it went bankrupt. These actions are also sufficient to indicate a continuing intent to resume operations of the plant if this could be accomplished. The factors identified in the comment, i.e., duration for the idle period and the planned actions accompanying resumption of operation, do not diminish the sufficiency of the actions that have occurred for the plant that preserved its status as an existing source. The other aspect of this policy is that appropriate administrative actions are taken to maintain the status of the source as existing. LTV and Chicago Coke have taken these actions, including maintaining the existing CAAPP permit for the plant. In addition, the plant was maintained in the Illinois EPA's records.

Furthermore, as part of recent revisions to the PSD rules, 40 CFR 52.21, USEPA amended the definitions so that the classification of the plant as a new or existing source may not even be relevant to the applicability of New Source Review to the project. A replacement unit is now defined as an existing unit. A replacement unit is defined as an emission unit that completely takes the place of an existing emissions unit; is identical to or functionally equivalent to the replaced emissions units; does not alter the basic design parameters of the process unit; and the replaced emission unit is permanently removed from the major stationary source.

74. **Restart of an idle source may also trigger New Source Review if it meets the definition of a major modification. In re Monroe Electric Generating Plant, Entergy Louisiana, Inc. Proposed Operating Permit, Petition 6-99-2, USEPA Administrator, p.10. If the activities required as part of the restart "...collectively appear to be part of a large non-routine effort..." then restart would qualify as a physical change for purposes of determining whether a major modification has occurred. The USEPA went on to state, "The mere fact that the plant is changing from a lengthy "non-operational" and unmanned" condition, to one in which the plant is fully operational, fits the common sense meaning of a "change in the method of operation." The USEPA concluded the mere restart of units following a protracted idle period constituted a major modification triggering new source review.**

In the present case, there is much more occurring than restarting the plant after a protracted idle period. According to the application, as part of this project, a pad-up rebuild of the coke oven battery will be performed. A new charging system will be installed, and doors and lids will be replaced. Existing boilers will be retrofitted. Despite these changes, under the draft permit, the plant will be allowed have higher

emission limits than it actually emitted in the past for every regulated pollutant. In light of the replacement of major plant components and emission increases, the project should be considered construction of a major modification.

The Illinois EPA agrees that the Monroe decision provides a relevant precedent for the review of this project as it addresses the circumstances which the resumption of operation of a source may constitute a major modification. This is because this portion of the Monroe decision is based directly on the provisions of USEPA's PSD rules. In this decision, USEPA finds that when a restart of a source would occur following an idle period, it is necessary to consider whether there would be physical or operational changes occurring in conjunction with the restart that should be considered as modifications of the source, i.e., activities that would not qualify as routine maintenance, repair and replacement of components. In this case, it is then necessary to determine whether the change in emissions of different PSD-pollutants from the project would be such that the project qualifies as a major modification. This is the approach that the Illinois EPA has followed in reviewing this project.

75. **Please describe the legal basis for the emission baselines in the Chicago Coke permit, including a description of whether these estimates reflect a PSD/BACT or non-attainment NSR/LAER analysis of the facility.**

For the non-attainment pollutants (VOM, NO_x for the 8-hour standard and PM_{10}), 35 IAC 203.104 defines actual emissions as:

> "the actual rate of annual emissions of a pollutant from an emissions unit as of a particular date. Actual emissions are equal to the average rate in tons per year, at which the emissions unit actually emitted the pollutant during the two-year period which immediately precedes the particular date or such other period which is determined by the Illinois Environmental Protection Agency (Agency) to be representative of normal source operation..."

35 IAC 203.104 formed the legal basis for the Illinois EPA's determination of the baseline emissions.

For the attainment pollutants (NO_x for the 1-hour ozone standard, SO_2 and CO), 40 CFR 52.21(b)(48)(ii) defines baseline actual emissions as:

> "the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the reviewing authority, whichever is earlier, except that the 10-year period shall not include any period earlier than November 15, 1990."

40 CFR 52.21(b)(48)(ii) formed the legal basis for the Illinois EPA's determination of the baseline emissions.

The Illinois EPA has not determined whether the emission baselines reflect a PSD/BACT or non-attainment NSR/LAER analysis as the Illinois EPA does not comprehend what is meant by this comment.

76. **It is unclear how LTV's emissions for NO_x and VOM in the Chicago Coke permit compare and contrast to the mandated state inventories produced since the issuance of the 1979 permit. Please identify the NO_x and VOM emission estimates for the LTV facility as reflected in state emission inventories since the issuance of the 1979 construction permit.**

The Illinois EPA has verified that the NOx and VOM emissions have been included in the state emission inventory since the issuance of the 1979 construction permit. The exact emissions levels for these years are not relevant.

77. **Please describe the legal basis to allow Chicago Coke to exceed BACT/LAER emission limits imposed on Republic/LTV.**

The permit does not allow relaxation of the requirements established for Republic/LTV pursuant to New Source Review. In fact, the construction permit incorporates provisions of the PSD permit and this PSD permit is an attachment to the construction permit for case of reference.

78. **The Illinois EPA should identify whether the use of a coke side shed, an enclosed unit or a moveable hood system would be likely to reduce emissions from pushing operations at Chicago Coke and, if so, whether the use of either of these approaches would be required if the Chicago Coke were characterized as major source subject to BACT or LAER.**

The Illinois EPA investigated the possibility of requiring additional enclosure on the coke-side of the operation. The Agency determined that additional enclosure would not significantly aid in accomplishing the purposes of the Act. The reasons for the Illinois EPA's decision follow.

The concentration of emissions within such an enclosure would significantly increase the occupational risk to workers within the enclosure. In addition, as discussed earlier, the current construction permit is for a pad-up rebuild of an existing plant. The pad-up rebuild involves re-bricking and certain renovations that would not require a change to the foundations or general "footprint" of the facility. The addition of a coke-side shed would require a change to the "footprint" of the facility.

The commenter also requested that the Illinois EPA describe its reasons for not requiring some type of movable enclosure system. Such movable enclosure systems have been installed at other facilities but their use has later been discontinued because the systems have been determined to have a high failure rate and are unreliable (Dofasco Incorporated in Canada, the former ACME plant in Chicago, and others). Such systems have also caused

damage to the quench tower at other facilities. In the USEPA publication entitled National Emission Standards for Hazardous Air Pollutants (NESHAP) for Coke Ovens: Pushing, Quenching, and Battery Stacks - Background Information for Proposed Standards - Final Report, February 2001 (the "Final Report"), the USEPA specifically investigated "traveling hood systems such as Envirotech's 'Trav-L-Vent' and Dravo Corporation's 'Minister Stein.'" Final Report section 3.1.3. The USEPA found that "despite the capability of traveling hoods, in practice they do not regularly travel to the quench tower at most facilities that use them for pushing emissions control." Id. In summary, the Illinois EPA determined that such movable enclosure systems have not been demonstrated to be effective in practical use and requiring such a system would not aid in accomplishing the purposes of the Act.

The project is a pad-up rebuild of an existing plant not a new major source or major modification. The Illinois EPA would make decisions regarding any new major source or major modification based on the specific parameters involved with any such new major source or major modification. It would not be appropriate for the Illinois EPA to speculate as to what could be required if a different set of regulations were applicable.

79. **This plant could reduce its emissions of hazardous air pollutants like benzene by changing from a recovery to a nonrecovery plant. A nonrecovery plant eliminates hazardous air pollutants. Most coke ovens that are subject to best available control technology in this day and age are nonrecovery facilities.**

The project that must be addressed when evaluating an application for permit is that for which an application has been submitted, i.e., an existing recovery coke oven battery. To require an evaluation of an alternative type of plant, as suggested by this comment, would constitute a fundamental change to the project.

80. **I would like Chicago Coke to install a fence line monitoring system for the plant so that the community can know exactly what kinds of emissions are escaping into the community.**

A fence line monitoring system would not provide the data sought by this commenter. However, the Illinois EPA has numerous monitors in the Chicago area that collect ambient air quality data. Such information is available to the public. In addition, the permit requires periodic emissions testing, monitoring and recordkeeping which would appropriately quantify the emissions from the units at the plant.

81. **Air modeling should be conducted and empirical data should be analyzed to determine the impact of different types of coal on mercury emissions and appropriate standards and controls should be established in the permit, before the plant begins operating.**

The types of analysis requested by this comment are neither feasible nor necessary. As neither testing nor measurements of the mercury emissions from the plant were not conducted when the plant last operated, empirical data is not available for the plant's mercury emissions. Air modeling does not generate emission data. Emission data is an

input to air modeling, which then predicts the pollutant concentrations in the atmosphere that occur with the given emission data.

82. **Multi-pathway human health risks from mercury emission should be assessed and considered prior to resuming operation at this plant. Neither the Illinois EPA nor Chicago Coke have conducted such an assessment or an ecological risk assessment, which is important because of the proximity of the plant to Lake Michigan, in which mercury is a toxic contaminant of concern. In a thorough review, both wet and dry deposition of mercury from the plant would be modeled, build-up of mercury in aquatic systems, wetland areas, and wildlife areas and their related watersheds would be determined, and the toxicological effects of such mercury and related dose-pathways would be evaluated.**

As already explained, such an analysis would not be a productive exercise. USEPA is addressing mercury emissions on a national basis, as is most appropriate for mercury given the nature of the environmental problems that it poses. In this regard, USEPA recently adopted rules for control of mercury emissions from coal-fired power plants, which are the category of stationary sources now considered most important for emissions of mercury to the environment. The USEPA's new rules are expected to achieve greater than a 70 percent overall reduction in the mercury emissions of power plants.

83. **I am concerned about the effects of emissions of this project on regional air quality and on the communities immediately adjacent to the plant. These concerns include the effect of the plant's emissions on ambient air quality for pollutants for which this region currently fails to meet federal public health standards. I am also concerned that this plant could degrade air quality for pollutants for which this region now meets such standards.**

The pollutants for which the Greater Chicago area is now nonattainment, i.e., $PM_{2.5}$ and ozone (8-hour average), are the result of general background levels of pollutants in the air entering the Chicago area combined with the overall loading of pollutants from the Chicago area itself. As such, the plant is another source that contributes to the loading of pollutants that will have to be considered in the development of the attainment strategy for the PM2.5 and ozone air quality standards. It is expected that the critical categories of sources for further control of emissions for purposes of attainment will be power plants and mobile sources, for which USEPA has adopted national control programs that will result in substantial improvements in air quality. The question for the attainment strategies for the Chicago area will then be what further local reduction in emissions are needed for attainment. For this purposes, the plant is one of many sources of emissions that will have to be considered and is already in the baseline inventories used by the Illinois EPA for development of the attainment strategies.

Given the current air quality for pollutants for which the Greater Chicago area is attainment and the fact that the emissions of the plant are not increasing significantly above past levels, this project is unlikely to have a noticeable effect on air quality for pollutants for which the area is currently attainment.

84. **What are the interstate effects of this plant's emissions on acid rain and ozone air quality conditions in downwind regions?**

As related to acid rain, the plant is a relatively small source of emissions of acid rain precursors so that no particular effect on acid rain should be assumed from the plant. The major category of source implicated in acid rain is coal-fired power plants, as specifically regulated by the federal Acid Rain Control program.

Given the magnitude of emissions from the plant, this project, by itself, is unlikely to have a noticeable effect on air quality in downwind regions. Rather it is simply one of the many sources that contributes to the emissions of the Chicago area.

85. **Potentially affected endangered species and their critical habitat should be inventoried, and the impact of mercury emissions from the plant on these species and their habitat should be assessed. The Illinois EPA must consult on these issues with USEPA and, in turn, the U.S. Fish and Wildlife Service, prior to issuing any permit for the project.**

The actions requested by this comment are not appropriate or necessary. The coke plant is an existing source. The emissions allowed by the permit will not be significantly different than the past emissions of the plant. In fact, as provided by the permit, the emissions of mercury from the plant will be less than the past emissions, if Chicago Coke must implement specific measures to reduce the plant's emissions of mercury, as required by the provisions of the permit to specifically address mercury emissions. Further, other actions are occurring that are reducing the overall loading of mercury to the environment, notably with respect to control of emissions from coal-fired power plants. Moreover, in these circumstances, the issuance of a state construction permit for resumption of the plant does not pose a potential new threat to endangered species of animals or plants in the area, of a type for which consultation with the U. S. Fish and Wildlife Service is required.

86. **This is an environmental justice community of concern. The Illinois EPA has the duty and the authority to initiate the maximum public process.**

This project was of a type for which notice to the public is required. The governing regulations do not require a hearing. Notwithstanding, the Illinois EPA afforded the public a hearing on the matter. The public comment period began on December 11, 2004, with the publication of a notice in the Daily Southtown. Additional notices were published in the Daily Southtown on December 18 and 25th, 2004. A public hearing was held on January 25, 2005, at The Zone, Youth and Community Center, 11731 South Avenue O in Chicago, to receive oral comments and respond to questions regarding the project and draft air permit. The comment period originally was scheduled to close on February 24, 2005, to receive written comments. The comment period was extended twice with the comment period ultimately closing on March 25, 2005. In addition, prior to the hearing the Illinois EPA conducted outreach to interested environmental organizations.

87. **The Illinois EPA has not considered the potential for a significant, adverse, and disproportionate impact on the surrounding neighborhood. This is an environmental justice issue. The Illinois EPA should conduct comprehensive modeling of plant emissions including emissions of hazardous air pollutants, to determine if this plant, as proposed, will result in a significant adverse impact on the disproportionately minority community that surrounds it.**

The commenter asserts that there is no evidence in the permit record that Illinois EPA undertook any affirmative activity to ensure that the plant would not cause a significant, adverse, and disproportionate impact on low-income and/or minority residents living in the surrounding community. The Illinois EPA generally refers to such concerns as "environmental justice." The Illinois EPA conducted demographic analysis with the United States Environmental Protection Agency's EJ Geographic Assessment Tool ("EJ GAT"), confirming that the area surrounding the plant is a potential Environmental Justice ("EJ") community. USEPA considers an "community" as "a minority or low-income community that bears disproportionately high and adverse human health or environmental effects." (Executive Order 12898)

88. **As part of its Environmental Justice analysis of this project, the Illinois EPA should also conduct a comparison of the differences in applicable requirements between treating this project as a minor modification and as a major modification source for purposes of New Source Review. This request is made because it appears the Illinois EPA's discretionary decision to characterize this pad up rebuild of this plant as a minor modification allows it to avoid many of the requirements that would be triggered by new source review, including an analysis of Best Available Control Technology, modeling and opportunities for third party appeal to the Environmental Appeals Board under the PSD program, as well as an analysis of Lowest Achievable Emissions Rate, offset requirements, an alternatives determination under non-attainment NSR. If implemented, many of these requirements would directly benefit nearby residents. The decision to avoid these activities by characterizing this as a minor modification is a discretionary agency decision that may create a defined, significant, adverse and disproportionate impact.**

As noted by this comment, the regulatory circumstances of the plant would be very different if Chicago Coke were proposing to construct a new coke oven battery, rather than to make improvements to an existing coke oven in conjunction with resuming operation. However, as previously discussed, the Illinois EPA has not made a "discretionary decision" on the applicability of New Source Review, as suggested by this comment. This decision was bound by applicable New Source Review regulations, which do not provide for different treatment of projects depending upon whether a project is located in an Environmental Justice area or not. However, the Illinois EPA has used its administrative authority to develop and issue a permit that carefully addresses and minimizes the emissions of this plant.

Consistent with the Illinois EPA's Interim EJ Policy (available at http://www.epa.state.il.us/environmental-justice), the Illinois EPA considered information

provided by the commenter and other available information to assess whether there are potential significant adverse environmental impacts. The Illinois EPA conducted dispersion modeling to assess the impacts of coke oven emissions (The Illinois EPA did not separately model the constituents of coke oven emissions as USEPA has addressed coke oven emissions as a distinct pollutant.), arsenic, benzene, cadmium and nickel from the source on the community. From the modeling, the Illinois EPA concludes that the plant is not likely to pose a significant risk to human health. Specifically, the risks posed by emission from the coke ovens (80 in a million) are significantly below the acceptable risk level (200 in a million) established by the USEPA in its residual risk promulgation.. In fact, the actual risk is likely a third of the modeled value as the modeling is based on the maximum emissions that could be emitted under the construction permit whereas USEPA has indicated that coke ovens typically emit only 80% of their allowable emissions levels.

Additionally, the Illinois EPA conducted SO_2 and NO_x dispersion modeling. Such modeling indicated that the emissions from the source would not cause any NAAQS violations.

Significantly, the final permit reflects a number of additional conditions protective of the health of the surrounding community and the environment. First, during construction and operation of the plant, the Illinois EPA is requiring the use of ultra low-sulfur diesel fuel in all diesel vehicles owned and operated at the plant by Chicago Coke and all diesel vehicles operated at the plant that Chicago Coke has the direct right to control. This condition explicitly recognizes the potential for particulate matter ("PM") from diesel emissions to adversely impact the surrounding community. In addition to reducing the emission of PM, the use of ultra low-sulfur diesel fuel will also reduce the emissions of sulfur dioxides.

Second, the Illinois EPA included a condition requiring testing for metals during the emissions test for PM from pushing at the baghouse. The Illinois EPA recognized that metals are of great concern to the public given the potential health ramifications. The required testing will generate improved information on the nature and amount of metal emissions from the pushing operations, providing the Illinois EPA with desirable information for further assessment of any potential adverse environmental impacts.

Third, commenters expressed concerns for mercury emissions and the lack of an emissions limit for mercury. Currently, there is no legal requirement supporting the imposition of a limit on mercury. Information that USEPA has assembled on mercury emissions shows that by-product recovery coke oven batteries are not significant sources of mercury emissions, presumably because the by-product recovery operations are also effective in controlling mercury emissions. There is adequate information to conclude that mercury emissions from this plant or other sources generally are not a direct threat to air quality or public health. However, the plant is required to gather information on the levels of mercury emissions from the coke oven batteries to determine if the plant is achieving a 90 percent control of mercury emissions. If the plant does not achieve a 90 percent reduction in mercury emissions, the plant is required to evaluate whether lower mercury emissions may be achieved without unacceptable consequences and depending upon the results of this evaluation may be required to undertake mercury minimization measures.

Fourth, and most significantly the Illinois EPA issued the permit to include operational limitations based on the best controlled facilities for the following emission units or processes: coke oven charging, leaks from doors, leak from lids, leak from offtakes, coke oven pushing, coke quenching, and the combustion stack (battery stack). Generally, these limits are more stringent that the Prevention of Significant Deterioration ("PSD") permit issued to the plant in 1979 and/or the NESHAPs for coke oven batteries (40 CFR Part 63, Subparts L and CCCCC). Further, requirements of Subpart CCCCC are imposed earlier than the compliance date of April 14, 2006.

89. **Where was the notice for the public hearing published? I didn't see it in the Observer, which is the local paper,**

The public notice was published in the Daily Southtown on December 11th, 18th, and the 25th.

90. **Because of the strong likelihood of a permit challenge, and in order to create a record upon which an appeal will be based, I request that my comments be reproduced verbatim in the Responsiveness Summary, followed by the Illinois EPA's response.**

The Illinois EPA will not be reproducing any comments verbatim. A Responsiveness Summary is a document that is prepared to explain the Illinois EPA's actions to all interested members of the public. This objective would not be achieved by repeating lengthy comments verbatim nor is this needed to create a "record," as suggested in this request. The applicable regulations simply require a response to all significant comments. These regulations do not require a response to each comment individually. However, the Illinois EPA has responded to all significant comments that were received.

91. **Does the Beemsterboer family, which owns Chicago Coke, participate in the "good neighbor dialogues" organized by the Southeast Environmental Taskforce? This organization conducts these dialogues between businesses and local residents to address community concerns and to try to work together. If so, what improvements or changes have the Beemsterboers' made in their businesses for the community, because I don't know of any.**

Chicago Coke indicated that members of the Beemsterboer family are part of and have worked closely with the Southeast Environmental Taskforce with respect to their existing businesses.

Other Comments

The Illinois EPA acknowledges the comments that follow. However as they are not germane to the permitting decision, the Illinois EPA declines to comment.

92. **State-of-the-art technology is to be incorporated into this project, which will set the bar on a national basis.**

93. I'm against the plant getting a permit unless it is the best there is.

94. Even if you support the reopening of this plant, local residents deserve the best level of environmental protection that is achievable. That is how everybody wins, a good plant, well-controlled. This permit is not even close to that standard.

95. The residents of the community are owed a state-of-the-art plant by Chicago Coke.

96. The project is important for the jobs it would create, which are important at a time when jobs, especially good-paying union jobs, are leaving not only the area but the entire country. This plant will provide jobs where and when they are most needed. The impact on the community will be significant with several hundred union construction jobs and about 200 permanent jobs. There will also be off-site related jobs, which could also number into the hundreds.

97. Local and state revenues resulting from this project come at a time when our city and state are facing significant budget challenges. Additionally, the economic benefits for the community over the long run could reach into the hundreds of millions of dollars.

98. The East Side Little League can rest assured that its field, which is now owned by Chicago Coke, will remain a recreational facility for the community to enjoy.

99. The reopening of this plant will produce over 200 new, well-paying, permanent union-jobs.

100. This coke plant has been in this community for decades. The Beemsterboer family, which now owns the plant, has been in this community for decades and plans to utilize the local work force for this new venture.

101. As Chicago Coke will recognize that its workers will naturally seek collective bargaining rights, which workers at the plant previously enjoyed, I see an opportunity for workers to be paid a livable wage and have the substantial benefits that members of the United Steelworkers Union enjoy.

102. This project is crucial to the overall steel industry because Chicago Coke would produce metallurgical coke. This is a raw material that is needed for the integrated steel mills just across the state line in Indiana, at which many residents of the southeast Chicago area work.

103. The investment that Chicago Coke proposes is crucial for the impact it will have in the Calumet Area business community.

104. The Beemsterboer family, which owns Chicago Coke, doesn't live in this area. If this project is going to provide such a great opportunity to the local community, they should bring their families back here and let them breathe the same air the local community is breathing.

105. I know quite a few people who have moved out of this area, they didn't do so because there were no jobs here. They did so because it's dirty, it's polluted, and it's industrial.

106. I support the approval of the requested permit and strongly endorse the redevelopment of the coke plant. The investment will have a substantial positive impact on the area.

107. The Chicago Coke project is an opportunity to create incentives for other businesses to come in the area. Investment is contagious and this project will, without doubt, bring additional development to the area.

108. As bringing coal to the plant by barge, truck traffic will be minimized in the neighborhood.

109. If the permit were issued as drafted, the permit should be challenged until it is remedied or until every appeal option is exhausted.

110. One thing we haven't heard is Illinois EPA say that they are going to guarantee clean air.

FOR ADDITIONAL INFORMATION

Questions about the public comment period and permit decision should be directed to:

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