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September 8, 2008

To: Attention: Docketing Department
The Ohio Power Siting Board
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Subject: Middletown Coke Company Cogeneration Station OPSB Case No. 08-281-EL-BGN

Per the ORC 4906.10(A)

The board shall not grant a certificate for the construction, operation, and maintenance of a major utility facility, either as proposed or as modified by the board, unless it finds and determines all of the following:

(3) That the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations;

The BAT is not being used per OAC 3745-31-01 Definitions

T) "Best available technology" or "BAT" means any combination of work practices, raw material specifications, throughput limitations, source design characteristics, an evaluation of the annualized cost per ton of air pollutant removed, and air pollution control devices that have been previously demonstrated to the director of environmental protection to operate satisfactorily in this state or other states with similar air quality on substantially similar air pollution sources.

See the attached comments and letters.

1. Middletown Coke Company PTI Application 14-06023 (pages 12, 13, 58, 59, 66, 67, and 68)

Comments:

This letter has to do with comparison of the Permit I. D. No. 119040ATN by the State of Illinois given to Gateway Energy and Coke Company wholly owned by SunCoke on March 13, 2008 to the Middletown Coke Company Draft Permit. Gateway used netting

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to obtain their permit which is the same basis as the Middletown Coke Company's Draft Permit.

The following changes should be made in the Middletown Coke Company draft permit to be the more realistic like the Gateway Energy Permit. These changes are:

- Gateway used an emission factor of 18.21 lbs SO₂/wet ton coal vs. Middletown Coke Company which used 23.92 lbs SO₂/wet ton of coal. It should be 16.36 lbs SO₂/wet ton of coal
- Gateway used 1.1% Coal Sulfur vs. Middletown Coke Company which used the unrealistic number of 1.3% Coal Sulfur. **GATEWAY GOT IT RIGHT AT 1.1% COAL SULFUR!!!!**
- Gateway used 55% of the sulfur to the coke vs. Middletown Coke Company which used 50% of the sulfur to the coke. It should be based upon the actual results at Haverhill which should be 60%.
- Gateway used 8 days of venting of the bypass stacks vs. Middletown Coke Company which used 15 days of venting of the bypass stacks. The allowable venting at Haverhill, FDS Coke, and Gateway Energy are 8 days which is the correct number of days.
- Gateway installed CEM on the main stack vs. Middletown Coke Company installing nothing. The BAT is a COM but a CEM is better than nothing and should be installed if SunCoke does not want a COM like every byproducts coke plant in the country.
- Gateway is limited to an average charge weight of 42.5 tons coal for the same size ovens when venting out of the bypass stacks vs. Middletown Coke Company which has no restrictions. There has to be a restriction of 42.5 tons coal per charge plus a minimum coking time of 48 hours at the Middletown Coke Plant.

2. Middletown Coke Company cannot include emission decreases from the AK Steel sinter plant in the netting analysis because the sinter plant emission decreases are not contemporaneous with the proposed MCC emissions.

According to the definition of "net emissions increase" in O.A.C. § 3745-31-01, other increases and decreases in actual emissions may be "netted" with proposed increases only if the other increases and decreases are contemporaneous and otherwise creditable.

O.A.C. § 3745-31-01(TTT)(2). The contemporaneous period for netting is the period between the date five years before commencement of construction on the particular change (*i.e.*, the MCC facility) and the date that the increase from the particular change occurs. *Id.* § 3745-31-01(TTT)(3)(a). The term "commence" means that the owner or operator has obtained all necessary preconstruction approvals or permits and either has (1) begun a continuous program of on-site construction of the source or modification, or (2) entered into binding contractual obligations to undertake the construction of the source or modification. *Id.* § 3745-31-01(Z).

In other words, for purposes of the MCC netting analysis, the contemporaneous period for netting can begin no earlier than 5 years prior to issuance of the final PTI and other

necessary preconstruction approvals for the MCC facility. The AK Steel sinter plant emission decreases occurred on June 16, 2003, the date AK Steel ceased operation of the sinter plant. Letter from Steve Francis, AK Steel, to Brad Miller, HCES (12/1/03).² Since the final PTI for the MCC facility has not yet been issued, the sinter plant decreases fall outside the five-year contemporaneous period.

Several explanations have been offered why the sinter plant emissions decreases are contemporaneous, none of which satisfy the law on this subject. First, we have been advised that Ohio EPA considers the sinter plant decreases to be contemporaneous because they occurred within five years of MCC's submission of the PTI application. Such an interpretation conflicts with the plain language of O.A.C. § 3745-31-01(TTT), which clearly states that the contemporaneous period is measured from commencement of construction of the proposed change. In *Puerto Rican Cement v. EPA*, 889 F.2d 292 (1989), the First Circuit Court of Appeals stated that the date of submission of a permit application is "irrelevant" to determination of the contemporaneous period as defined under the identical terms of the federal PSD program. See 40 C.F.R. § 52.21(b)(3)(ii). In *Puerto Rican Cement*, the appellant asserted that emission decreases from a prior fuel change in 1982-83 should be netted with proposed emission increases from a new cement kiln. The applicant submitted an application for a PSD non-applicability determination for the new kiln in July, 1987, which U.S. EPA reviewed and ultimately denied in 1988.

The First Circuit held:

The Company undertook a coal conversion project in 1982-1983, which led to a significant decrease in emissions. The EPA refused to credit the Company with this decrease because, it found, the decrease was not "contemporaneous" with the present proposed project. The Company now argues that the EPA is wrong.

² Copies of all non-rule references cited in section (1)(b) of this comment letter are attached as Appendix B. The EPA's regulations, however, make clear that the coal project was not "contemporaneous." They say that a decrease is "contemporaneous" if it occurs between the date five years before construction on the particular change commences[,] and . . . the date that the increase from the particular change occurs.

40 C.F.R. § 52.21(b)(3)(iii).

Since construction on the kiln modification has not yet "commence[d]", and since more than five years has passed since the coal conversion, the Company cannot bring itself within this "contemporaneous" window. The Company says that it *filed its NAD application* within five years of the time it converted to coal, but that fact is irrelevant; the regulation speaks of "*construction on the [kiln] . . . change,*" not of an *application* to make the change. 40 C.F.R. § 52.21(b)(3)(iii).

Puerto Rican Cement at 300 (emphasis in original).

As illustrated in separate U.S. EPA guidance issued to the Puerto Rico Electric and Power Authority (PREPA), the five-year contemporaneous period changes with the passage of time and is not "frozen" even by issuance of a preconstruction permit, let alone submission of a permit application. Letter from S. Riva, U.S. EPA, to H.

Alejandro, PREPA (6/10/02). In the PREPA matter, a utility obtained preconstruction certification of power plant modifications based in part on a netting analysis that considered the retirement of other units in September and December, 1996. When PREPA did not commence construction of the new modifications by December, 2001, U.S. EPA concluded that PREPA lost the ability to claim the unit retirements for netting purposes and directed PREPA to conduct a new netting analysis for the project:

Under the federal PSD regulations at 40 CFR 52.21(b)(3)(ii), an increase or decrease in actual emissions is contemporaneous (and therefore creditable) with the increase from the particular change only if it occurs between (a) the date five years before construction on the particular change commences; and (b) the date that the increase from the particular change occurs. PREPA decreased actual emissions by retiring Units 5 and 6 by September 1996 and December 1996, respectively, but did not commence construction of the new combustion turbines by December 2001 and indeed has still not commenced construction.

The regulations at 40 CFR 52.21(b)(9) defines the term "commenced construction." Construction commences when the owner/operator has obtained all necessary preconstruction approvals or permits and either has; (i) begun, or caused to begin, a continuous program of actual construction of the source, to be completed within a reasonable time; or (ii) entered into binding agreements or contractual obligations which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the source to be completed within a reasonable time. PREPA received all necessary preconstruction approval or permits by October, 2001. However, at that time, PREPA neither began actual construction nor had entered into any binding agreement or contractual obligation to undertake actual construction. Thus, PREPA did not meet the "commence construction" test and thereby failed to meet the 5-year contemporaneous period requirement to qualify for netting credits. *EPA has not authority to extend this five year period.* Thus, in order to obtain an 18 month extension, PREPA must review both the pollutants affected in the original PSD permit as well as the additional pollutants. *Id.* at 2 (emphasis added).

Even under Ohio EPA's own PTI laws and regulations, it makes no sense to treat the PTI application date as the date of commencement of construction. Ohio Administrative Code § 3745-31-02 prohibits the installation of a new source without first obtaining a PTI from the Director. The term "installation" means "to begin actual construction, erect, locate, or affix any air contaminant source." O.A.C. § 3745-31-01(BBB). It would be absurd for OEPA to prohibit a facility from beginning actual construction of a source without obtaining a PTI, but to consider construction to be "commenced" upon submission of the PTI application. Under such circular reasoning, any facility would be in violation of the PTI rules immediately upon filing a PTI application.

Moreover, the air pollution PTI is not the only "necessary preconstruction approval or permit" that MCC must obtain before commencing construction of this project. With an

electrical generating capacity of 52 MW, the MCC facility would be a "major utility facility" regulated by the Ohio Power Siting Board. According to R.C. § 4906.04, no person may "commence to construct" a major utility facility without first obtaining certification from the OPSB. MCC did not file an application for certification with the OPSB until August of 2008. Furthermore, at the time the PTI application was filed MCC had neither obtained requisite zoning approvals or even acquired the properties on which the facility is to be built.

All of this is not to say that a permit application date has no role in netting. According to U.S. EPA, it is common *in initial netting calculations* to calculate the contemporaneous period from the application submission date because the actual date of commencement of construction is unknown. Though this may be a common starting point for the netting analysis, however, it is not the end of the analysis:

During the application process, the netting analysis is revised as necessary to remove the increases and decreases that have fallen beyond the 5-year period. *By the time the permit is issued, the up-to-date netting analysis should include only those increases and decreases within the 5 years going back from the date construction will commence.*

Email correspondence from Kaushal Gupta, U.S. EPA, to Christopher Walker (8/20/2008)(emphasis added).

As a final note on this point, even assuming for sake of argument that the contemporaneous period is measured from receipt of the MCC PTI application in March, 2008, MCC could only claim the three months of actual emissions from March 2003-June 16, 2003 for netting purposes. Emissions decreases over this period are insufficient to avoid the applicability of PSD and NSR.

A second reason has been advanced why the sinter plant emission reductions may be contemporaneous for purposes of netting. From review of internal Ohio EPA email, it appears that Ohio EPA staff may at one time have mistakenly concluded, based on the procedure found in Ohio Administrative Code § 3745-31-01(O), that "a company can use [netting] credits as far back as ten years."³ Email from A. Lloyd to H. Lauer (6/17/08).

This is a misunderstanding of § -31-01(O), which governs the calculation of "baseline actual emissions" against which subsequent emission increases and decreases are measured. O.A.C. § 3745-31-01(TTT)("baseline actual emissions for calculating increases and decreases under paragraph (TTT) of this rule shall be determined as provided in paragraph (O) of this rule . . ."). For purposes of determining whether those increases and decreases are contemporaneous, one looks to O.A.C. § 3745-31-01(TTT)(3)(a), which, as explained above, states that such increases and reductions are contemporaneous if they occur within five years of commencement of construction of the new project.

The ten-year baseline period in Paragraph (O), as referenced above by Agency staff, was introduced as a result of rule revisions to conform O.A.C. Chapter 3745-31 with the 2002

federal NSR reforms. An identical ten-year federal baseline period had been previously introduced in 40 C.F.R. § 51.165 on December 31, 2002. 67 Fed. Reg. 80185 (12/31/02). However, U.S. EPA was specific in that preamble to that rule that "it was not our intent to extend the 5-year contemporaneous period (for considering creditable emissions increases and decreases as part of the netting calculus), even if we established a 10 year baseline look back period." *Id.* at 80193. The Agency amplified this point in its Technical Support document for the 2002 NSR reform package:

3 This does not appear to be Ohio EPA's current position on the subject, since both Ohio EPA and HCES representatives agreed at the August 21, 2008 public hearing that the contemporaneous netting period is five years.

The Agency did not propose to extend (and the final rules do not extend) the current 5-year contemporaneous period for considering increases and decreases for netting. . . . Moreover, the petitioners' claim that the final rules allow the source to include emission reductions that occur "more than a decade earlier" is incorrect. The reductions must occur within the five year contemporaneous window; however, the source may go back further to determine the size of the reduction from the activity. This is consistent with the method used before the final rule changes. A source that reduced emissions five years before a change could use years six and seven, or even a longer period if it was found to be more representative, to establish its actual emissions.

U.S. EPA, *Technical Support Document for PSD and Nonattainment NSR: Reconsideration* at 15-16 (10/30/03)(emphasis added). *See also* Letter from David Howekamp, U.S. EPA, to Robert T. Connery (11/6/87)(discussing the 5-year contemporaneous period, EPA "specifically considered and rejected" netting within a 10-year period.)

For the above reasons, since the emissions decreases from the 2003 sinter plant closure are not contemporaneous, MCC cannot "net out" of PSD and nonattainment NSR applicability.

3. The MCC netting analysis is inadequate because it fails to account for other contemporaneous emissions increases at the AK Steel Middletown Works within the past five years.

Both the Ohio and federal definition of "net emissions increase" requires consideration of "any other increases and decreases in actual emissions" in the netting analysis. According to U.S. EPA, failing to include contemporaneous emissions increase when considering decreases is a common error in major source netting. U.S. EPA, *NSR Workshop Manual* A.44 (Draft 1990) (relevant portions attached as Appendix 3).

Though the netting analysis relies on emission decreases from the sinter plant

closure and alleged decreases from a proposed flame safety management project for the boiler house, the PTI application does not certify that there are no other relevant emissions increases that may have occurred at AK Steel's Middletown Works during the five-year contemporaneous period. The City of Monroe is aware of one contemporaneous emission increase involving construction of a tar decanter tank (PTI application number 14-06013). Without accounting for other contemporaneous increases and decreases, the MCC netting analysis is deficient and the permit must be denied.

4. Emission decreases from the sinter plant shutdown and boiler house flame safety management project are not creditable for netting purposes because the decreases are not federally enforceable.

In order to be creditable for netting purposes, any emission decreases must be enforceable as a practical matter at the time actual construction of the proposed change occurs. O.A.C. § 3745-31-01(TTT)(3)(e)(ii); 40 C.F.R. § 52.21(b)(3)(vi)(b).

To the City of Monroe's knowledge, no permit has been or will be issued to AK Steel's Middletown Works, as of the date of proposed construction of the MCC facility, to make the boiler house flame safety management project enforceable as a practical matter. Furthermore, because MCC does not have control of AK Steel's operation of its boiler house, *see* Comment (2)(a), above, no permit terms in the draft PTI will be binding or enforceable with regard to AK Steel. Without such restrictions, emissions decreases (if any) from the flame safety management project are not creditable for purposes of netting against MCC's proposed emissions

5. The permit application and draft PTI omit essential provisions applicable to major stationary sources under the PSD and nonattainment NSR programs.

This draft permit was issued based on the Agency's conclusion that the MCC facility is not a major stationary source for PSD and nonattainment NSR. For the reasons discussed above, MCC cannot net out of those programs and must be considered a major stationary source. The PTI application and the draft PTI do not address the following essential regulatory elements of the PSD and NSR programs applicable to new major stationary sources:

- (i) Analysis of ambient air quality in the area of the facility for each criteria pollutant for which MCC has the potential to emit in a significant amount, O.A.C. § 3745-31-14(B);
- (ii) Minimum data submission requirements of O.A.C. § 3745-31-12(C);
- (iii) Criteria and non-criteria pollutant attainment analysis, impact analysis, and air quality modeling. O.A.C. §§ 3745-31-14, -16-18. *See also* CAA § 165(a)(3), 42 U.S.C. § 7475(a)(3); 40 C.F.R. § 52.21(k)-(m);
- (iv) Analysis and designation of Best Available Control Technology, O.A.C. § 3745-31-15. *See also* CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4); 40 C.F.R.

§ 52.21(j)(2);

(v) Analysis and incorporation of Lowest Achievable Emission Rate (LAER) for nonattainment pollutants, O.A.C. § 3745-31-22(A)(1);

(vi) Certification that all existing major stationary sources owned or operated by the applicant (including AK Steel if deemed under common control with MCC) are in compliance with all applicable emission limitations and standards under the Clean Air Act and the Ohio SIP, O.A.C. § 3745-31-22(A)(2); and

(vii) Offsets for all nonattainment pollutants, O.A.C. § 3745-31-22(A)(3);

For these reasons, the permit must be denied.

6. Ohio is currently not an “authorized state” for purposes of administering the federal PSD and nonattainment NSR programs, including non-applicability determinations thereunder, because Ohio has not obtained U.S. EPA approval of SIP revisions implementing recent changes to PSD and nonattainment NSR.

Ohio EPA obtained U.S. EPA approval status for its PSD and nonattainment NSR SIP provisions in January, 2003. 68 Fed. Reg. 1366 (1/10/03)(PSD); 68 Fed. Reg. 2909 (1/22/03)(NSR). Those federal approvals related only to Ohio SIP revisions submitted to U.S. EPA between 1980 and 1999 in the case of nonattainment NSR, and between 1980 and July 18, 2002 in the case of PSD.

In December of 2002, however, U.S. EPA released a rule package significantly altering the federal PSD and nonattainment NSR programs. 67 Fed. Reg. 80185 (12/31/02). In its January, 2003 approvals of the Ohio PSD and NSR programs, U.S. EPA stated as follows:

Recently, EPA announced new regulations regarding changes to the preconstruction permitting program under EPA’s efforts regarding “New Source Review Reform.” Today’s approval of Ohio’s SIP submission does not address EPA’s new rules but is limited to portions of Ohio’s preconstruction permit program under the existing rules. EPA is taking no position today whether Ohio will need to make changes to its SIP to meet any requirements that EPA may promulgate as part of New Source Review Reform.

68 Fed. Reg. 1366 (1/10/03); 68 Fed. Reg. 2910 (1/22/03). Since that time, U.S. EPA has issued further revisions to the federal PSD and nonattainment NSR programs. *E.g.*, 68 Fed. Reg. 63027 (11/17/03); 69 Fed. Reg. 40275 (7/1/04).

Although Ohio EPA may have submitted subsequent revisions of its PSD and NSR programs to U.S. EPA for review, Ohio has not yet received approval of those revisions

Since Ohio currently does not have a fully-approved PSD and NSR program, any permitting actions under the PSD and NSR programs (including non-applicability determinations thereunder) should either be issued by U.S. EPA or by Ohio EPA under delegation from U.S. EPA.

7. Comments regarding emission limitations and technology requirements in

the draft MCC PTI:

(a) Source P901 generally: The work practices (*e.g.*, stamped coal charge, baghouse push car PM control) and emission limitations applicable to the FDS Coke facility, Toledo, Ohio, constitute BAT for coke plants in Ohio. BAT includes work practices and design specifications. O.A.C. § 3745-31-01(T). MCC cannot simply sidestep BAT requirements by claiming its facility is "very different" from FDS in design and operation, any more than an auto body shop can avoid BAT by arguing that its antiquated spray equipment is "very different" from HVLP guns or other equipment found by EPA to be BAT. If MCC has selected manufacturing processes and equipment that are incapable of meeting the standards established at the FDS Coke facility, the PTI should either be denied for failure to meet BAT or amended to require a design that comports with BAT.

(b) Source P901, page 56: The fugitive PM emission limit from charging is based on the AP-42 emission factor for uncontrolled emissions (0.027 lb PM/ton coal charged) but then assumes capture and control efficiency of 90% by traveling hood and baghouse. The same table in AP-42 (12.2-21) includes a controlled emission factor of .0081 lb PM/ton coal charged and assumes capture/control efficiency of only 70%. Please justify the use of a 90% capture efficiency versus the 70% figure found in AP-42.

(c) Source P901, page 63: The draft permit requires a minimum SO₂ control efficiency of 90% from the use of a lime spray dryer on the main waste gas stack. A review of PTI #07-00511 issued to Haverhill North Coke Company on January 15, 2008 establishes 92% SO₂ control efficiency as BAT for a seemingly identical dry lime control system. The 92% control efficiency figure should be incorporated in the MCC PTI as BAT.

(d) Source P901, page 66: The draft PTI includes no control efficiency requirements for mercury. The PTI for FDS Coke, Toledo, contains a BAT-based mercury control efficiency of 90%. Mercury control efficiency in the MCC PTI must be established consistent with the BAT determination for FDS Coke. The draft MCC PTI also contains no emission limitations for mercury. Similarly, no mercury emission limits were established for the main stack at the Haverhill North Coke Plant. EPA justified this omission due to "significant uncertainties concerning the expected mercury emissions from non-recovery cokemanufacturing facilities." PTI No. 07-00511, at p. 201. However, the subsequently-issued PTI for FDS Coke (also a non-recovery coke plant) does include BAT-based emission limitations for mercury. There is no reason why MCC cannot estimate mercury emissions from its processes; omitting mercury limitations altogether due to alleged data uncertainties is not justifiable. If either Ohio EPA or MCC later determine that initial mercury emission limitations are inappropriate based on subsequent data, appropriate changes may be made through the PTI modification process, subject to public review and comment.

(e) **Source P901, page 67:** The PTI application assumes 360 hours of by-pass time per waste gas stack in the calculation of coke oven emissions. However, the BAT determination in the PTI for the Haverhill North Coke Plant assumes only 192 hours. The PTI for the MCC facility should allow no more than 192 hours/yr of bypassing.

(f) **Source P901, Page 67:** Paragraph (8) allows for uncontrolled bypassing of the SO₂ control system during HRSG maintenance & inspection activities as BAT. Pursuant to Ohio EPA policy on BAT, a cost effectiveness study is required for sources proposing to emit greater than 80 TPY of SO₂ before controls.

Section 3.1.1 of the PTI application dismisses additional SO₂ controls during bypass as being too costly since the system may only be needed for 10-15 days/year. However, when the unsupported capital and operating cost figures provided are divided by the proposed uncontrolled bypass emissions (448.5 TPY), the cost effectiveness is roughly \$14,000/ton. While somewhat on the high side of typical SO₂ controls, this cost is clearly within an order of magnitude of control projects that have been found to be cost effective. That, coupled with the uncontrolled SO₂ emissions during bypass being well in excess of OEPA's 80 ton threshold, strongly suggest the need for a more detailed cost effectiveness study.

(g) **Coal and coke storage piles:** Both coal and coke storage piles should be totally enclosed as at FDS Coke.

8. Alexander J. Sagady & Associates

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VIA EMAILED PDF FILE

August 19, 2008

Ms. Cheryl Newton, Director -Acting
Air and Radiation Division
U.S. Environmental Protection Agency - Region V
Chicago, IL

RE: Middletown [OH] Coke Company & Ohio EPA Division of Air Pollution Control -Violation of Netting Requirements for a Draft Air Permit and Impermissible Minor Source Permitting of a Major Stationary Source

Dear Ms. Newton:

We are writing on behalf of the Sierra Club of Ohio concerning the proposed Middletown Coke Company Draft Air Permit to Install that has been published by

the Ohio EPA. The public comment period on the application and draft permit are presently running.

This communication is intended as an air pollution complaint against Middletown Coke Company and the State of Ohio. The complaint is that those respondents have either applied for or plan to approve a plainly impermissible and unlawful minor modification air permit to install for Middletown Coke Company. In reality, what is planned here is the impermissible construction of a major stationary source of emissions without the required major modification/source permit covering both prevention of significant deterioration and nonattainment NSR program requirements.

Middletown Coke Company proposes 100 heat recovery coke ovens arranged in 3 batteries, along with quenching, materials handling and other related operations at a site in Middletown, OH near AK Steel. The Applicant is seeking a permit to install on the basis of the Applicant's claim that the proposed coke oven batteries would be a minor modification, net-out source.

The Applicant's netting analysis relies on a second quarter 2003 emission reduction from AK Steel shutdown of its sinter plant¹ in order to show a net emission increase below applicable significant emission levels for all applicable new source review pollutants.

The approved Ohio State Implementation Plan contains Ohio Administrative Code citation,

²<http://yosemite.epa.gov/r5/newsip.nsf/495a296c1716ccc386256fb100622583/f3f0617ea2cf070386256d500076c522!OpenDocument>

³ The present version of this rule is at OAC 3745-31-01(TTT)

⁴ Approved Ohio SIP Rule OAC 3745-31-01(YY)(3)(a); current rule is presently OAC 3745-31-01(TTT)(3)(a) including a definition of "net emission increase."² Approved Ohio SIP rule OAC 3745-31-01(YY)³ specifies the calculation method for the required netting analysis. The rule provides that an emission reduction is creditable only if it occurs during the defined contemporaneous period. The rule provides:

"An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between the date five years before construction on the particular change commences and the date that the increase from the particular change occurs."⁴

The Applicant indicates that October, 2008 is the date of commencement of construction. This means that the contemporaneous period in compliance with the approved Ohio SIP rule begins in October, 2003 for purposes of emission reduction creditability, rule compliance and netting analysis.

This is a matter of brightline determination with no room for EPA and Ohio EPA discretion to approve a varying result. The AK Steel sinter plant shutdown occurred during the second quarter of 2003. We conclude the sinter plant shutdown occurred before the start of the contemporaneous period for the Middletown facility and that the emission reduction from the AK Steel sinter plant shutdown cannot be creditable in any allowable calculation of the net emission increase or in any netting demonstration.

Ohio EPA plans to issue this impermissible permit to install to Middletown Coke Company that relies on the complete defective determination of net emission increase in the netting analysis.

With this complaint we ask that U.S. EPA Region V Air and Radiation Division exercise its supervisory role in the state administration of Federal Clean Air Act requirements. We ask that EPA take the following actions:

- File adverse comments with Ohio EPA addressing the matter of the improper crediting of non-contemporaneous emission reductions in the netting analysis and indicating that the Draft Permit must be denied.
- If Ohio EPA issues the final permit and Middletown Coke Company commences construction of its facility, we ask that EPA Region V initiate an enforcement action against Middletown Coke Company for construction of a major stationary source without required PSD and nonattainment-NSR permit to install.

9. Subject: Middletown Coke Company PTI Application 14-06023 (pages 55 and 56)

In the Draft Permit located in Section C Emissions Units Terms and Conditions for the Operations, Property and/or Equipment Description is: P901 - Heat Recovery Coke Battery b) Applicable Emissions Limitations and/or Control Requirements in b) coal charging operations with baghouse and traveling hood.

Listed under 'The Applicable Emissions Limitations/Control' b) is

- 1. "Fugitive PE from charging shall not exceed 1.35 pounds per hour and 1.23 TPY as a rolling, 12-month summation." (Page 56)**
- 2. "Visible particulate emissions of fugitive dust from charging operations shall not exceed 20% opacity, as an average of five consecutive charges. Particulate emissions (PE), and total particulate matter emissions 10 microns and less in diameter (PM10) shall not exceed 7.4 pounds per hour and 6.72 tons per year (TPY) as a rolling, 12-month summation from the charging" (page 55)**

Comments:

Instead of a fugitive charging emissions rate of 1.23 tons per year as calculated by Middletown Coke Company in their permit to install based upon the assumptions made in the report Engineering Evaluation of the Charging Machine Hood System, IT 406253.17, International Draft EIS Technology Corporation, Knoxville, TN, December, 1992.,using the fact that none of the coal dust that is not captured remains as coal dust the fugitive charging emissions calculate to be about 13 times 1.23 tons per year or 16 tons per year.

1. Charging process is not the Best Available Technology

In page 7 of this permit 7. Best Available Technology:

'As specified in OAC Rule 3745-31-05(A)(3), new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.'

Best Available Technology applies to P901 – Heat Recovery Coke Battery because the unit exceeds 10 tons per year of PM and PM10 emissions:

1. Coking operations with heat recover steam generators and lime spray dryer –main stack PM10 Total shall not exceed 103.24 tons per year.

FDS Coke Plant in Toledo, Ohio agreed with the Ohio EPA on April 23, 2005 to change their proposed non recovery coke plant charging process from conveyor with loose coal charging as proposed by the Middletown Coke Company to the use of flat coal carrier car with a stamped coal cake to reduce charging emissions.

This agreement between the Ohio EPA and FDS Coke Plant is now the standard for all new non recovery coke plants with heat recovery in Ohio and all new coke plants in Ohio must met or be better than the FDS Coke Plant charging emissions control being installed in Toledo, Ohio. The proposed Middletown Coke Company does not meet the charging emissions allowed under the FDS Coke Plant permit.

The Middletown Coke Company on page 3-1 of their PTI Application Stated:

"Ohio EPA issued a PTI to the FDS Coke Plant in Oregon, Ohio. This is a heat recovery coke plant to be designed by the German company Uhde (a ThyssenKrupp company). The conceptual design is very different from the heat recovery SunCoke design to be used at MCC. The ovens are larger — designed to carbonize 67 tons of coal compared to 50 tons at MCC. Charging is to be accomplished by a stamped (compacted) coal cake with a very small air pollution control system [3,000 cubic feet per minute (cfm) compared to the 45,000 cfm system at MCC]. Coke is to be pushed as a coke cake with a small air pollution control system (9,500 cfm compared to the 50,000 cfm system at MCC). To the best of our knowledge, this heat recovery coke oven design, charging

system, and pushing system have never been constructed or used anywhere in the world. Consequently, the technology and limits for the FDS facility are not demonstrated and do not represent BAT for the MCC facility."

Middletown Coke Company's above statement is true in that the proposed coal cake charging system has never been used "in combination with heat recovery." That does not mean that coal cake charging into non recovery ovens is unproven technology.

Coal cake charging goes back to the early nineteen hundreds when stamped coal cake charging was done into beehive non recovery ovens. It is very old, forgotten, proven technology which clearly reduces charging emissions.

An article "Combining Stamp Charging with the Heat Recovery Process" in AISE Steel Technology describes the successful full scale test at a non recovery coke plant in India using stamp charging in July, 2001..

KOCH Transporttechnik GbmB, Germany has built two Stamping Charging Pushing Machines for TATA Steel's No. 8 Coke Battery in India.

The Stamping Charging Pushing Machines are going to be built for FDS Coke Plant and can be built for Middletown Coke Company.

2. Charging Emissions Factors for non recovery ovens are wrong based upon very bad assumptions.

The fugitive charging emissions are based upon incorrect assumptions which were made during the June 17-19 test performed at the Jewell Coke Vansant, Virginia non recovery coke plant. The title of the test is "Engineering Evaluation of the Charging Machine Hood System, IT 406253.17, International Draft EIS Technology Corporation, Knoxville, TN, December, 1992.

The Charging Plume Control System for the non recovery ovens at Vansant, Virginia consisted of a capture hood with ductwork going to a baghouse. Samples were taken from the exit stack after the baghouse. The following statements are made on Page 15 of this report:

"The total charging emissions of particulate matter, soluble organics (BSO or TSO), volatile and semi-volatile organic compounds, and metals from the baghouse exhaust are summarized in Table 6-4. As discussed previously, the hood system did not collect 100% of the charging plume. The total emissions of particulate matter were estimated based on the observation that approximately 70% of the charging plume was captured and conveyed through the baghouse."

"The total particulate emission rate was then estimated as the sum of the baghouse exhaust and the uncaptured plume rate of 0.00807 lb/ton of coal charged."

"The total TSO/BSO emission rate was estimated in the same way, with the assumption that the BSO concentration in the uncaptured particulate was the same as the coal tar pitch volatiles in the baghouse."

There were no opacity readings taken during this test to determine what the emissions are without the control hood and with the control hood. There is no attempt at a scientific approach for the statement of approximately 70% of the charging plume being captured. The assumption is totally subjective and without scientific value and should not be the basis of fugitive charging emissions.

The data listed in Table 6-4 shows that only 2% of the particulate matter captured by the baghouse was carbon. Coal blends contain about 67% carbon, 27% volatile matter, and 5-6% ash. Coal burns at 260-365 F. The coal dust and volatile matter collected in the capture hood are combusted before they reach the baghouse. Therefore the amount of coal dust and volatile matter escaping the oven are way under estimated. Since only the ash remains in tact in which 5-6% of the emissions, the captured emissions are understated by a factor of 12-14 times the actual emissions.

When the coal and volatile matter escape the oven they are cooled and are not combusted like they are in the capture hood and ductwork going to the baghouse. The assumption that the TSO/BSO fugitive emission rate is 30% of the total determined by the amount measured in the baghouse discharge is incorrect. The volatile matter captured in the hood is almost completely combusted before being measured. The volatile matter not captured by the hood escapes to the atmosphere not combusted.

The EPA emission factors for byproduct recovery ovens are 0.011 lb/ton particulate matter. The emission factor for byproducts recovery ovens is 1.36 times the emission factor for non recovery ovens. That is ridiculous since the charging emission standard for byproduct ovens is only 12 seconds of visible emissions per charge and the non recovery ovens charging emission standard is 20% opacity for 3 minutes and visible emissions are allowed the entire 4 minutes it takes to charge a non recovery oven. **The fugitive charging emissions for a non recovery oven based upon time of allowable emissions is 240 seconds verses 12 seconds for byproducts ovens which is 20 times more emissions. That equals 0.22 lbs PM/ton of coal or 100 tons PM/year. . SunCoke is allowed fugitive emissions the entire 4 minutes it takes to charge an oven and the fugitive charging emissions rate should reflect emissions for 4 minutes.**

Instead of a fugitive charging emissions rate of 1.23 tons per year as calculated by Middletown Coke Company in their permit to install based upon the assumptions made in the report Engineering Evaluation of the Charging Machine Hood System, IT 406253.17, International Draft EIS Technology Corporation, Knoxville, TN, December, 1992., using the fact that none of the coal dust that is not captured remains as coal dust the **fugitive charging emissions calculate to be about 13 times 1.23 tons per year or 16 tons per year.**

The proposed non recovery plant Federal EPA allowable charging standard is that visible emissions are allowed the ENTIRE charging time with a maximum of 20 % opacity over a 3 minute average. This means that a large cloud of fugitive emissions can be released on every charge. That is exactly what I seen when I visited SunCoke's East Chicago non recovery plant. So what are the actual allowable fugitive emissions when the test at Vansant, Virginia did not take opacity readings? God may know but nobody else does.

The Ohio EPA must make SunCoke use the maximum allowable fugitive emissions in their permit for netting. THE OHIO EPA HAS NO VALID INFORMATION ON FUGITIVE CHARGING EMISSIONS FOR NON RECOVERY OVENS.

NO PERMIT TO INSTALL SHOULD BE ISSUED UNTIL PROPER TESTING IS DONE BY SUNCOKE AT HAVERHILL ON FUGITIVE CHARGING EMISSIONS AND NEW STANDARDS SET.

If the fugitive charging emissions are only 1.23 tons per year, then the opacity readings standard should be zero. No fugitive charging emissions equals no visible emissions during charging.

Since the Haverhill Coke Plant has been in operation at Franklin Furnace, Ohio since 2005 and according to SunCoke an improvement over their two other older plants, new tests should be conducted to get proper emission factors for design calculations including chemical analysis of the uncaptured fugitive emissions.

3. The allowable visible emissions standards are not the Best Available Technology

The proposed non recovery plant Federal EPA allowable charging standard is that visible emissions are allowed the ENTIRE charging time with a maximum of 20 % opacity over a 3 minute average. This standard does not include the performance of the Haverhill Non Recovery Coke Plant. This standard was set on data collected before 2004 when there were only two non recovery coke plants in the United States. Since the Haverhill Coke Plant started up in 2005, every week opacity readings have been recorded on fugitive charging emissions. The fugitive charging emissions standard for the Middletown Coke Plant should be based upon the actual performance of the Haverhill Coke Plant instead of a standard set from a Vansant Coke Plant which states they have only 70 percent capture verses a stated 90 percent capture in the design of the Middletown Coke Plant.

Reference:

1. Internet - Middletown Coke Company PTI 14-06023 to install on line at the Ohio EPA web site. Click on "what's New" and go down to March 17. The netting calculations are in the Addendum 1 from Ohio EPA.
2. Article "Combining Stamp Charging with the heat recovery process"
3. Stamping, Charging, Pushing Machines for TATA Steel's No.8 Coke Battery in India
4. Engineering evaluation of the charging machine hood system at Vansant, Va. Dec.92
5. References for Section 4 Reference 12 Bee -EPA

10. Subject: Middletown Coke Company PTI Application 14-06023 (pages 58 and 63)

In the Draft Permit located in Section C Emissions Units Terms and Conditions for the **Operations, Property and/or Equipment Description** is: P901 - Heat Recovery Coke Battery b) Applicable Emissions Limitations and/or Control Requirements in c) Coking operations with heat recovery steam generators and lime spray dryer - main stack OAC rule 3745-31-05(A)(3)

Listed under c) "The Applicable Emissions Limitations/Control" is SO₂ emissions shall not exceed 300.0 lbs/hr (based upon a 3-hour block average) and 1091.4 TPY as a rolling, 12-month summation. **(Page 58)**

(2) Additional Terms and Conditions

a. Under OAC rule 3745-31-05, the following best available technologies shall be required:

i. The waste gas from coking shall be processed by the use of a lime spray dryer with a manufacturer's design control efficiency of 90% for SO₂ control, staged combustion for NO_x control, combustion optimization for CO and VOC control, and a baghouse for PE control. **(Page 63)**

COMMENTS:

1. CALCULATED EMISSION FACTOR: lbs.SO₂/wet ton coal

The Draft Permit Section B. Facility-Wide Terms and Conditions in paragraph 3 has an unlabeled table "Coke Plant Allowable in tons per year" states under P901 Charging (stack) which shows 1091.4 TPY SO₂ emissions. The actual calculated value used is in the Appendix B Supporting Calculations in Calculation No. 6. Using SO₂ EF (lb/tons coal charged) = 23.92 **(Material Balance)**

This number is **WRONG**. This number is actually the amount of sulfur in the coal as follows:

Coal moisture = 8.0 %; Coal sulfur = 1.3%; one ton = 2,000 lbs.

Lbs. sulfur/ wet ton coal = $(1.0 - 0.08) (2,000) (0.013) = 23.92$

2. ACTUAL CALCULATED EMISSION FACTOR FOR lbs.SO₂/wet ton coal

The Middletown Coke Company can not use a coal blend with an average of 1.3% sulfur as stated in the Appendix B Supporting Calculations **Middletown Coke Company -**

Heat Recovery Coke Plant Assumptions / Major Inputs and make the required coke sulfur for a blast furnace which produces hot metal for high quality steel.

For example, Ispat Inland, Inc., (a direct competitor of AK Steel) blast furnaces use SunCoke non recovery coke which averages 0.65% sulfur with a maximum specification of 0.82% sulfur.

The Middletown Coke Company has signed a tentative contract with AK Steel to provide coke to the Middletown Blast Furnace. The coal blend sulfur should be based upon the agreed to contract coke specifications. The Middletown Blast Furnace specification for coke sulfur is a maximum of approximately 0.9% sulfur. The Middletown Coke Plant can not produce a much higher sulfur coke without the operation of a desulphurization plant because of limitations on hydrogen sulfide in under firing coke oven gas at the Wilputte Battery. Also a blast furnace can not operate efficiently on two cokes which are much different in chemical analysis.

The General Rule for North American Carboniferous coking coals is: $\text{Coke Sulfur} = 0.75 \times \text{Coal Sulfur} + 0.08$. This General Rule is a good for coal sulfurs ranging from 0.8 to 1.1%

Therefore, Middletown Coke Company average coal blend sulfur should be a maximum of 1.10% sulfur to produce 0.9% coke sulfur as calculated;

$$\text{Coke Sulfur} = 0.75(1.1) + 0.08 = 0.90\%$$

3. CALCULATED EMISSION FACTOR USING 1.1% SULFUR COAL BLEND

Basis of calculations; Coal moisture = 8.0%; Coal sulfur = 1.1%; 2,000 lb/ton;
Coke yield = 72.5%

$$\text{Lbs sulfur/wet ton coal charged} = 2000(1.0 - 0.08)(0.011) = 20.24$$

The maximum allowable sulfur in the coke is 0.9%

$$\text{Lbs sulfur/wet ton coal charged left in coke} = 2000(1.0 - 0.08)(0.725)(0.009) = 12.01$$

The lbs. sulfur/wet ton of coal charged in the SO₂ emissions during pushing is:

$$= 2000\text{lbs/ton}(44.71 \text{ tons/yr}) (32 \text{ molecular wt sulfur}) / 64 \text{ molecular wt SO}_2 (912,500 \text{ tons/yr}) = 0.05 \text{ lbs sulfur /wet ton of coal charged}$$

The sulfur leaving with the pushed coke is the sulfur in the coke and the emissions from the pushed coke = $12.01 + 0.05 = 12.06$ lbs. sulfur/wet ton of coal charged.

Therefore the sulfur going to the heat recovery unit is the difference of the sulfur in the coal charge and the coke pushed = $20.24 - 12.06 = 8.18$ lbs. sulfur/wet ton of coal charged.

The amount of SO₂ to the heat recovery unit is = (8.18 lbs. sulfur) (64 molecular wt SO₂)/32 molecular wt sulfur = 16.36 lbs.

THEREFORE THE EMISSION FACTOR FOR SO₂/WET TON COAL IS 16.36 LBS. INSTEAD OF 23.92 LBS.

References:

1. Internet - Middletown Coke Company PTI 14-06023 to install on line at the Ohio EPA web site. Click on "what's New" and go down to March 17. The netting calculations are in the Addendum 1 from Ohio EPA.
2. Ispat Inland – Coke Quality – Sulfur Max. .82
3. McMaster – Coke Oven Game
4. FDS Coke- Sulfur Emissions Standard
5. Haverhill PTI – 07-00511 Jan. 15, 2008 Pages 128 and 129
6. National Lime Association – Lime Balance Usage
7. Haverhill Coal Quality Report First Quarter 2008
8. Haverhill SO₂ emissions summary reports First Quarter 2008

11. Subject: Middletown Coke Company PTI Application 14-06023 (pages 66-68)

In the Draft Permit located in Section C Emissions Units Terms and Conditions for the **Operations, Property and/or Equipment Description is: P901 - Heat Recovery Coke Battery b) Applicable Emissions Limitations and/or Control Requirements in c) Coking operations with heat recovery steam generators and lime spray dryer - main stack OAC rule 3745-31-05(A)(3)**

c) Operational Restrictions (pages 67 and 68)

"(8) Combustion gases from the coking process shall be routed to the HRSGs controlled by the spray dryer/fabric filter system, except (1) during inspection and maintenance of HRSGs, (2) during inspection and maintenance of the spray dryer/fabric filter system, and (3) monthly verification of operability of the lids for the waste heat stacks. The total duration of venting through waste heat stacks, with coking gases not controlled by the spray dryer/fabric filter system, shall not exceed 1800 stack-hours per 12-month rolling period (a maximum of 360 hours for any of the five waste heat bypass stacks). These bypass periods and appropriate operation

during periods of bypass shall also be addressed by the Startup Shutdown and Malfunction (SSM) Plan required for the plant by 40 CFR 63.6 (e). During bypass of the spray dryer/fabric filter system charge rates to the ovens shall be reduced in accordance with the SSM Plan.”(pages 67 and 68)

(2) Additional Terms and Conditions

n. The pound per hour SO₂ emission limitation and minimum 90% SO₂ control efficiency requirement do not apply during maintenance of the lime spray dryer as per example during atomizer replacement (page 66)

COMMENTS ON BY-PASS VENT STACKS

The Middletown Coke Company wants to bypass the heat recovery unit a total of 15 days per year by venting out the bypass vent stacks.

The Ohio EPA issued the Haverhill North Coke Company owned by SunCoke a PTI 07-00511 on January 15, 2008. On Page 128 of 249 paragraph v. it is stated that a total of 8 days bypassing is permitted.

The Ohio EPA issued FDS Coke Plant L.L.C. a PTI 04-01360 on January 31, 2008. This permit allows a total of 8 days bypassing of the heat recovery unit.

OAC rule 3745-31-15 requires the best available control technology which means that the new source Middletown Coke Company should meet the same applicable emission bypassing standards as their own plant in Haverhill, Ohio and the FDS Coke Plant L.L.C. in Toledo, Ohio.

The Middletown Coke Company should be allowed to bypass the heat recovery unit a total of 8 days per year by venting out the bypass vent stacks which is the best available control technology.

Comments on Maintenance of of the lime spray dryer

Anytime the heat recovery flue gas desulfurization system is bypassed that is the same thing as opening the by-pass vent stacks and that must count in the allowable total of 8 days bypassing.

Comments on Charging Rates During bypassing of main stack baghouse

During bypass of the spray dryer/fabric filter system charge rates to the ovens shall be reduced in accordance with the SSM Plan **which should be one oven per hour which is 50% of normal production.**

The amount of Calcium Sulfate emissions would be 2 tons/hour at normal average production. The baghouse should never be passed without bypassing the lime spray dryer. **This is a serious violation of the air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-16-07**

References:

1. Internet - Middletown Coke Company PTI 14-06023 to install on line at the Ohio EPA web site. Click on "what's New" and go down to March 17. The netting calculations are in the Addendum 1 from Ohio EPA.
2. Ispat Inland – Coke Quality – Sulfur Max. .82
3. McMaster – Coke Oven Game
4. FDS Coke- Sulfur Emissions Standard
5. Haverhill PTI – 07-00511 Jan. 15, 2008 Pages 128 and 129
6. National Lime Association – Lime Balance Usage
7. Haverhill Coal Quality Report First Quarter 2008
8. Haverhill SO2 emissions summary reports First Quarter 2008

12. Subject: Middletown Coke Company PTI Application 14-06023 (pages 58 and 59)

In the Draft Permit located in Section C Emissions Units Terms and Conditions for the **Operations, Property and/or Equipment Description is: P901 - Heat Recovery Coke Battery c)**

Applicable Rules/Requirements:

Coking operations with heat recovery steam generators and lime spray dryer - main stack OAC rule 3745-31-05(A)(3)

Applicable Emissions Limitations / Control Requirement:

Visible particulate emissions from the lime spray dryer baghouse stack shall not exceed 10% opacity as a 6-minute average (page 58)

Applicable Rules/Requirements (page 59)

In accordance with 40 CFR 63.7282(b), this emissions unit is a coke oven battery subject to the emission limitations/control measures specified in this section.

Comments:

SunCoke's proposed monitoring beginning on page 68 is self reporting and falls short of assuring compliance. The following recommended monitoring requirements will assure compliance

The main waste gas stack is subject to page 7 of this permit 7. **Best Available Technology:** 'As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.'

A Continuous Opacity Monitor must be installed in the waste heat stack as SunCoke has agreed to at Granite City in their lawsuit settlement with the Sierra Club. This is required for all byproducts coke batteries in the United States and the non recovery batteries must be equally held accountable by reporting any opacity violations using the COM. The Nation Emission Standards for Hazardous Air Pollutants for Coke: Pushing, Quenching, and Battery Stacks on April 14, 2003 states

"E. What Are the Requirements for Battery Stacks?

The final rule requires plant owners or operators to monitor the opacity of emissions from each battery stack using a continuous opacity monitoring system (COMS) and to meet specified opacity limits at all times. The opacity limits are a daily average of 15 percent for a by-product coke oven battery on a normal coking cycle and a daily average of 20 percent for a by-product coke oven battery on a batterywide extended coking cycle. A battery is on batterywide extended coking if the average coking time for all ovens in a battery is increased by 25 percent or more over the manufacturer's specified design rate.

Initial compliance must be demonstrated through a performance test using a COMS. The opacity of emissions from each battery stack must be monitored for 24 hours and the daily average determined. A performance evaluation is also required to show that the COMS meets Performance Specification (PS) 1 in appendix B to 40 CFR part 60. To demonstrate continuous compliance, plant owners or operators must monitor opacity using the COMS and determine and record the 24-hour average opacity."

The certification of a smoke watcher is done using a COM. They are very reliable and a very useful tool for an operator. **A COM is the best available technology.** The COM should be used for the compliance of the rule:

All violations recorded by the COM of the following rule must be reported:

Visible particulate emissions from the lime spray dryer baghouse stack shall not exceed 10% opacity as a 6-minute average (page 58)

Surveillance camera must be installed to monitor the waste heat stack for visual evidence of compliance with records kept for 30 days. This is a common practice by byproducts coke plants. **As required by the Ohio Air Pollution Nuisance Law:**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

13. Subject: Middletown Coke Company PTI Application 14-06023 (page 21)

2. F002, F002 Operations, Property and/or Equipment Description: F002 - Coal and Coke Storage Piles

a) All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) b)(1)e. b) Applicable Emissions Limitations and/or Control Requirements

(2) Additional Terms and Conditions

d. The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the open coal storage pile with water at sufficient treatment frequencies to ensure compliance and dome enclosure of enclosed coal storage pile.

Comment:

The Middletown Coke Company is owned by SunCoke. The terrible coal dust storms at Haverhill are inexcusable. The best available technology is the use of indoor coal storage as required at FDS Coke Plant in Toledo, Ohio. The Middletown Coke Plant built in 1976 has water sprays the perimeter of the coal piles and has to be used daily when the temperature is above 32 F. There is no excuse for not requiring at least water sprays on the perimeter as it is proven inexpensive technology that has to be used daily above 32 F. It is recommended that the same water sprays system be required as the existing Middletown Coke Plant built in 1976. August 22, 2008

14. Subject: Middletown Coke Company PTI Application 14-06023 (pages 12, 13)

In the Draft Permit Section B. Facility-Wide Terms and Conditions in paragraph 3 on page 12 and 13 has an unlabeled table "Emissions credits from AK Steel". This table is a summary of **Appendix D AK Steel Emission Reductions**. This is a review of the AK Steel Emission Reductions.

Comments:

The use of the correct emission factors and stack test data results in the exceeding of the Clean Air Act Significant Emissions Rates and the lack of all necessary preconstruction

approvals or permits before the defined contemporaneous period means this permit application must be denied by the Ohio EPA”

1. The netting period for the sinter plant has exceeded the five year period because the sinter plant was shutdown in June 16, 2003 per the letter from Steve Francis of AK Steel to Bradley Miller of the Ohio EPA on December 1, 2003. The sinter plant was written off by AK Steel in the Securities and Exchange Commission Report at <http://sec.edgar-online.com/2003/08/07/0001193125-03-030555/Section16.asp> at the end of the second quarter of 2003.

The necessary preconstruction approvals or permits have not been obtained by the Middletown Coke Company before the end of June, 2008.

2. Ohio SIP rule OAC 3745-31-01(YY) specifies the calculation method for the required netting analysis. The rule provides that an emission reduction is creditable only if it occurs during the defined contemporaneous period. The rule provides:

“An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs between the date five years before construction on the particular change commences and the date that the increase from the particular change occurs.”

2/ In addition, the court found that an isolated prior inconsistent interpretation of EPA's applicability rules did not invalidate the Agency's determination as to Puerto Rican Cement. Slip op. at 19-22. Also, the court upheld EPA's interpretation that the time period for calculating "contemporaneous" emissions increases and decreases runs backward from the commencement of construction on the particular change, not from the time the company sought a nonapplicability determination from EPA. Slip op. at 24-26. Finally, the court rejected Puerto Rican Cement's attempt to gain judicial review of the lawfulness of the PSD regulations themselves. The First Circuit noted that under section 307 (b) (1), challenges to nationally applicable regulations may be lodged only in the District of Columbia Circuit, and that such a challenge is still pending in *Chemical Mfrs. Ass'n v. EPA*, No. 79-1112.

3. Title 40 EPA Appendix S to Part 51 – Emission Offset Interpretative Ruling states

16. *Necessary preconstruction approvals or permits* means those permits or approvals required under Federal air quality control laws and regulations and those air quality control laws and regulations which are part of the applicable State Implementation Plan.

An Ohio PTI is a necessary preconstruction approval or permit under this cited rule because it is required under Ohio's approved State Implementation Plan. Since that is the case, construction of the coke plant cannot "commence" until a final PTI is issued.

4. OAC 3745-31.1 states

(Z) "Commence" as applied to construction of a major stationary source or major modification means that the owner or operator **has all necessary preconstruction approvals or permits** and either has:

(1) Begun, or caused to begin, a continuous program of actual on-site construction or the major stationary source or major modification, to be completed within a reasonable time; or

(2) Entered into binding agreements or contractual obligations (which cannot be canceled or modified without substantial loss to the owner or operator) to undertake a program of actual construction of the major stationary source or major modification to be completed within a reasonable time.

The Ohio EPA Draft Permit 14-06023 for the Middletown Coke Company is based upon incorrect emission factors and stack test data referenced in the July 9, 2008 revised Sinter Plant Banking Document in Appendix D AK Steel Emissions Reductions. The Ohio EPA is must use the proper emission factors and stack test data to calculate Sinter Plant Banking Emissions Reductions. The use of the correct emission factors and stack test data results in the exceeding of the Clean Air Act Significant Emissions Rates which means this permit application must be denied by the Ohio EPA”

In the **1.0 INTRODUCTION/OVERVIEW** from the permit application:

“Table 1-1 lists the emission increases from the heat recovery coke plant and the emission decreases from shutting down the Sinter Plant and installing the flame management system from the No.2 Boiler House. Note that MCC emissions represent “potential to emit” and include different operating modes that will not occur simultaneously. This results in a conservative over estimation of some emissions. Table 1-2 demonstrates that the heat recovery coke plant project should be **treated as a minor modification because there will not be a significant net emissions increase [Ohio Administrative Code 3745-31-01 (TTT)].**”

In the Draft Permit Section B. Facility-Wide Terms and Conditions in paragraph 3 has two unlabeled tables “Coke Plant Allowable in tons per year” and “Emissions credits from AK Steel” which are summarized in **Volume 1 introduction/overview of the permit application in Table 1.1** which is based upon incorrect emission factors and stack test data.

The use of the correct emission factors and stack test data results in the exceeding of the Clean Air Act Significant Emissions Rates and the lack of all **necessary preconstruction approvals or permits** before the defined contemporaneous period means this permit application must be denied by the Ohio EPA”

15. Subject: Middletown Coke Company PTI Application 14-06023

The process flow diagram located on page 2-6 of the support document mcc_v2R1 shows boilers and flue dust to landfill. I believe that the plant site is a Sensitive Area as defined by AOC 1301:7-9-09 and located in the Greater Miami Sole Source Aquifer.

The Ohio EPA has allowed SunCoke to claim no process water discharge from this plant. This flow diagram on page 2-6 is inaccurate. There is a continuous and immediate water blowdown from the boilers which must be accounted for that are high in dissolved solids. Also there are zeolite filters which are regenerated by backflush water which is high in dissolved solids which must be accounted for. There is sewage from the locker room which must go someplace.

The calcium sulfate sludge removed in the main stack baghouse is water soluble. This material should require a solid waste disposal permit including monitoring to be sure it does not contaminate ground water for drinking water supply. The amount of sludge disposed of and the chemical disposition should be reported by month every quarter.

16 Subject: Middletown Coke Company PTI Application 14-06023 (page 66 and page 77)

In the Draft Permit located in Section C Emissions Units Terms and Conditions for the Operations, Property and/or Equipment Description is: P901 - Heat Recovery Coke Battery (page 66)

c) Operational Restrictions

(3) The maximum hourly charging and pushing rate for this emissions unit shall not exceed 10 ovens charged per hour and 10 ovens pushed per hour.

f) Testing Requirements (page 77)

(1) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emissions unit for: the waste gas stacks, charging baghouse stacks and the pushing multiclone stack. The emission testing for the waste gas stacks shall be conducted during one of the first four scheduled by-passes of a heat recovery steam generator for purposes of the annual heat recovery steam generator inspection and maintenance. The waste gas stack initial testing is only required on one of the five stacks.

b. The emission testing shall be conducted to demonstrate compliance with the following allowable limitations.

i. Waste gas main stacks: PE, SO₂, NO_x, CO, VOC*, Lead, and mercury

1. Comments on Compliance Testing Requirement

According to Lisa Frye during her visit to Haverhill Coke Plant, Ms. Peck of SunCoke told her that SunCoke pushes coke for eight hours for 12 to 8 and idles the batteries for 4 hours between 8 and 12. In the compliance testing for the main stack at Haverhill, SunCoke made the first compliance test run 8:51 AM to 12:05 PM on January 10, 2006 which would be the lowest coke oven gas production period in the 24 hour cycle. The second run and third runs were done at low coke oven gas production periods. The highest coke oven gas production is between 6 AM and 8 AM and 6 PM and 8 PM and that is when the compliance testing should have done at Haverhill and should be done at the Middletown Coke Company Plant.

(2) Per Paul Tedtman, Ohio EPA, in his email to Robert Snook August 7, 2008 at 5:11 PM, I quote "Our compliance tests are required to be performed within 90% of **maximum** production." Without water available only 3 ovens can be charged and pushed and therefore compliance testing can never be done.

This plant is rated at 2507 tons per day coal charged with an average of 50.14 tons per charge. The average number of pushes per day is 50.

In summary, the Middletown Coke Company should be allowed under Emissions Units Terms and Conditions for the **Operations, Property and/or Equipment Description: P901 - Heat Recovery Coke Battery** item c) Operational Restrictions:

(3) **The maximum hourly charging and pushing rate for this emissions unit shall not exceed 3 ovens charged per hour and 3 ovens pushed per hour. The wet coal charge rate shall not exceed 2620 tons per day. (The average is 2508 tons per day. The maximum allowable is 1.045 times the average). The permittee shall not exceed 52 charges/pushes per day. (The average pushes per day are 50. The maximum allowable is 1.045 times the average)**

4. REPRESENTATIVE TESTING CONDITIONS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460 September 30, 2005

OFFICE OF ENFORCEMENT AND COMPLIANCE ASSURANCE

MEMORANDUM

SUBJECT: Issuance of Final Clean Air Act National Stack Testing Guidance

FROM: Michael M. Stahl
Director
Office of Compliance

TO: Regional Compliance/Enforcement Division Directors

Attached is a copy of the Final Clean Air Act National Stack Testing Guidance. As you are aware, the guidance was first issued as interim guidance on February 2, 2004, to provide the Agency with an opportunity to evaluate its usage and monitor any potential problems that may have arisen as individual states began to apply the provisions. This final guidance supersedes the 2004 interim guidance.

The CAA requires that facilities comply with emissions limitations and emissions standards on a continuous basis. The Act defines the terms "emissions limitation" and "emission standard" in Section 302(k), 42 U.S.C. § 7602(k), as meaning "a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis" (Emphasis added). The statute also authorizes penalties for multiple days of violations and establishes a presumption of continuing violations if certain conditions are met. CAA Section 113(e)(1) and (2), 42 U.S.C. §§ 7413(e)(1) and (2). EPA has consistently, in rulemakings and policy statements over many years, taken the position that the CAA requires continuous compliance with emissions limits except where compliance is explicitly excused. See, e.g., Guidance entitled "Definition of 'Continuous Compliance' and Enforcement of O&M Violations," (June 24, 1982) ("In the strict legal sense, sources are required to meet, without interruption, all applicable emissions limitations and other control requirements, unless such limitations specifically provide otherwise."); Credible Evidence Rulemaking, 62 Fed. Reg. 8314, 8323, 8324, 8326 8314 (Feb. 24, 1997) (emissions limits require continuous compliance (consistent with any averaging times) except during periods when compliance is specifically excused).

- The following are factors that should be considered in developing the plan for a performance test that challenges to the fullest extent possible a facility's ability to meet emissions limits.

- For a facility operating under an emission rate standard (e.g., lb/hr) or concentration standard (e.g., $\mu\text{g}/\text{m}^3$), normal process operating conditions producing the highest emissions or loading to a control device would generally constitute the most challenging conditions with regard to the emissions standard. If operating at maximum capacity would result in the highest levels of emissions, operating at this level would not create an unsafe condition, and the facility expects to operate at that level at least some of the time, EPA recommends that the facility should conduct a stack test at maximum capacity or the allowable/permitted capacity.

- The test plan should generally include use of fuel, raw materials, and other process/control equipment that the facility expects to use during future operations that would present the greatest challenge in meeting applicable emissions standards. To demonstrate the facility's ability to meet concentration standards and emissions rate standards, for example, the facility generally should use the fuel or raw materials that it expects to use and that have the highest emissions potential for the regulated pollutant(s) being tested. In instances where alternative processing materials are expected to be used by the facility and those materials are known to adversely impact emissions quality or the functioning of control measures, the facility generally should

use the material that is likely to cause the greatest challenge in meeting applicable emissions standards. For concentration and emissions rates standards, the facility generally should process the material that it expects to use during future operations that is likely to cause the highest emissions. For control or removal efficiency standards, other factors may apply such as using fuels or raw materials that contain or produce pollutants that are more difficult to combust or otherwise remove.

- This guidance does not affect the ability of delegated agencies to prohibit a facility from operating at levels of capacity different from the level used during the stack test, or to restrict production to reflect conditions equivalent to those present during the stack test.

17. Subject: Middletown Coke Company Draft Permit PTI Application 14-06023

The Ohio EPA has not provided the following public records necessary to properly comment on the draft permit as follows:

1. I need a letter from AK Steel confirming that they do not have any production records for the Sept. 1995 sinter plant windbox SO₂ testing as stated by the Ohio EPA.. I have gotten four different answers on this: AK Steel netting calculation at 147 tons/hr, Brad Miller at 125 tons/hr, Ohio EPA meeting on August 5 where you said you have no information, and your last comment that the test was ran at 90% or greater of 125 tons/hour. Quit guessing and have AK Steel produce the file on the Sept. 1995 test or have them provide in writing they have no file.
2. I need a letter from AK Steel confirming that they do not have compliance test results on Sinter Plant Breaker Baghouse: source20P938, which is a permit violation completely ignored by the Ohio EPA for 15 years, and the actual Baghouse Engineering Specifications and Guarantee Testing by Manufacturer has stated by the Ohio EPA. AK Steel has to have the Baghouse Engineering Guarantee Emissions Specifications and Steve Francis who I greatly respect would never willing violate any permit testing requirement for 15 years as listed in AK Steel permit no. 1409010006 dated 3/27/98.
3. I need copy of No.2 and No.3 Boiler House daily steam production records and fuels used during netting period to evaluate claimed 100% NO_x reduction.
4. Need copy of the SO₂ emissions factor material balance for 23.92 lbs SO₂/ton of coal charged in Appendix B, page 3 from SunCoke which is the basis of SunCoke's calculations for SO₂ emissions based upon actual coke sulfur production results at Haverhill from January 2007 to March 2008. Also I need the total monthly purchase of lime for the flue gas desulfurization and the tonnage per month of waste sludge produced to properly evaluate the desulfurization process from January 2007 to March 2008.
Remember the more sulfur in the flue gas, the more lime purchased and sludge removed to landfill. I need actual accounting production records from Haverhill for coke sulfur, lime purchase with invoices and calcium sulfate sludge removed with invoices. The 50%

of the sulfur in the coal going to the flue gas is impossible. AK Steel has about 6 lb sulfur/ton of coal to the gas at Middletown and Ashland and you are telling me with over 30 years of coke plant experience that 12 lb sulfur/ton goes to the flue gas in the non recovery plant that as a overall coke yield of 72.5% vs. at byproducts coke yield of 76.5%. I have evaluated the non recovery process several times and there is no difference in the coke sulfur in the byproducts coke and the non recovery coke. Show me the difference with actual laboratory report data because according to you the laws of nature have changed in the last two years

5. Need a copy of the coke chemistry specifications in the contract between AK Steel and SunCoke to determine the maximum coal blend sulfur that can actually be used.

I have repeatedly asked for most of this information because it is necessary for the review of the Draft Permit. With the SunCoke material balance for sulfur being so ridiculous I have to ask for all the above information.

I need the Ohio EPA comment period extend two weeks beyond the receipt of all the above needed data.

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EMAILS WITH OHIO EPA

NO.1- AUGUST 6

From: lttsnook@aol.com

To: mike ploetz@hamilton-co.org

Cc: alan.loyd@epa.state.oh.us; Angelbeck.Richard@epamail.epa.gov;

Gupta.Kaushal@epamail.epa.gov; cwalker@vankleywalker.com;

jvankley@vankleywalker.com; fjlaw@fuse.net; erika.wiggins@EPA.State.Oh.us

Sent: Wed, 6 Aug 2008 3:40 pm
Subject: Middletown Coke Company Draft Permit Comment Letter No.17

Mike, attached is Comment Letter No. 17 which is a summary of our meeting yesterday. I am making a public records request under Ohio R.C. # 149.43(B)(1). The Ohio EPA needs to produce these records per Ohio Public Records Code # 149.43(B)(1):

- Need actual sinter plant production recorded during Sept. 1995 Sinter Plant Windbox SO2 Testing
- Need compliance test results on Sinter Plant Breaker Baghouse: source20P938 and actual Baghouse Engineering Specifications and Guarantee Testing by Manufacturer
- Need copy of No.2 and No.3 Boiler House daily steam production records and fuels used during netting period to evaluate claimed NOx reduction
- Need copy of the SO2 emissions factor material balance for 23.92 lbs SO2/ton of coal charged in Appendix B, page 3 from SunCoke which is the basis of SunCoke's calculations for SO2 emissions

I have repeatedly asked for this information because it is necessary for the review of the Draft Permit. I request that you respond in a timely matter as required by law with your intentions to meet or not meet these requests. Robert Snook

NO.2 - AUGUST 7

-----Original Message-----

From: lttsnook@aol.com

To: Paul.Tedtman@hamilton-co.org

Cc: mike.ploetz@hamilton-co.org; Gupta.Kaushal@epamail.epa.gov;

Angelbeck.Richard@epamail.epa.gov; alan.lloyd@epa.state.oh.us;

erika.wiggins@EPA.State.Oh.us

Sent: Thu, 7 Aug 2008 10:11 pm

Subject: Re: Middletown Coke Company Draft Permit Comment Letter No.17

Paul, I disagree with the following assumptions by you.

1. Actual sinter plant production recorded during Sept. 1995 Sinter Plant Windbox SO2 Testing

Since the production rate is unknown so is the emission rate per ton. There is **no proof of steady state** Operation as required in the Federal Law on compliance testing 40 CFR 60.8. The data can not be used in netting without the test run production data sheets. I will suit the Ohio EPA if you "pick out" a production number with an emission factor.

2. Need compliance test results on Sinter Plant Breaker Baghouse: source P938 and actual Baghouse Engineering Specifications and Guarantee Testing by Manufacturer.

AK Steel had to test the baghouse by permit. Steve Francis always seen that compliance testing was done. I want a letter from AK Steel stating that they never tested the baghouse since it was required in their permit and a copy of the engineering specification including design specifications for emissions discharge to determine the proper netting calculation for the breaker end and the fugitive emission were zero. I am requesting that

the comment period be extended for two weeks beyond the date that you provide the proper information.

3. Need copy of No.2 and No.3 Boiler House daily steam production records and fuels used during netting period to evaluate claimed NOx reduction. I understand the steam distribution and operation of the No.2 Boiler House and disagree with you or Carl Batliner telling me how it works. You should keep in mind that I was Technical Manager of the Coke Plant for nine years and interacted with the blast furnace and boiler houses on a daily basis. I am filing a lawsuit against the Ohio EPA next week and we will see who the judge thinks is right.

4. Need copy of the SO2 emissions factor material balance for 23.92 lbs SO2/ton of coal charged in Appendix B, page 3 from SunCoke which is the basis of SunCoke's calculations for SO2 emissions. I disagree with your statement that the emission factor for SO2 is not important. I believe that it is the basis for the allowable emissions of SO2 and therefore very important. Robert Snook

-----Original Message-----

From: Tedtman, Paul <Paul.Tedtman@hamilton-co.org>

To: ltsnook@aol.com

Cc: Miller, Brad <Brad.Miller@hamilton-co.org>; Ploetz, Mike <Mike.Ploetz@hamilton-co.org>; Erika Wiggins <Erika.Wiggins@epa.state.oh.us>; Gupta.Kaushal@epamail.epa.gov; Angelbeck.Richard@epamail.epa.gov; Alan Lloyd <alan.lloyd@epa.state.oh.us>

Sent: Thu, 7 Aug 2008 5:11 pm

Subject: FW: Middletown Coke Company Draft Permit Comment Letter No .17

Mr. Snook:

In the message below addressed to Mike Ploetz, you had requested documents and information from our agency. As you have noted, this is not the first time you had requested this data. Our agency has responded to your request and I would like to summarize those responses in this communication. As you acknowledge, we have not provided you the data which we do not have. In the past we have provided you with information which we did have at our office and which was used in preparing the draft permit. Some of the information you have requested, to our knowledge, does not exist. I would like to update you on the status of each of the items you had requested.

- actual sinter plant production recorded during Sept. 1995 Sinter Plant Windbox SO2 Testing

Brad Miller of this office provided to you on Aug. 1, 2008 the production rate of 125 tons/hour. This was the maximum rated plant production since the actual production was not reported in the test report. Our compliance tests are required to be performed within 90 percent of the maximum production. If the production rate was lower than maximum, that would actually result in an increased emission rate (for a lower production level) since the emission factor used in the permit from the test result was on a pound per ton basis. The method would result in an understated amount of emission credits if that is the case.

- Need compliance test results on Sinter Plant Breaker Baghouse: source P938 and actual Baghouse Engineering Specifications and Guarantee Testing by Manufacturer

Brad Miller communicated to you on Jul. 28, 2008 that our agency does not have, nor is aware of, a stack test on the Breaker baghouse. Furthermore, we had contacted AK Steel and they stated that a test was never performed on this control device. Thus, you can not expect to receive a test report from us. Brad Miller communicated to you on Jul. 29, 2008 that the breaker baghouse manufacturer was Amerex and that the control efficiency of the baghouse used by AK Steel was 99 percent. 99 percent is an industry wide standard that these devices are manufactured to meet. We have no additional information to provide on this matter.

- Need copy of No.2 and No.3 Boiler House daily steam production records and fuels used during netting period to evaluate claimed NOx reduction

I provided you with an explanation of the Boilerhouse emission credit calculations during our meeting at this office on Aug. 5, 2008. The credits are based on the size difference (i.e., BTU ratings) of the new pilot burners versus the replaced pilot burners, both of which operate continuously, other than for scheduled maintenance on the blast furnace. There is no need to obtain the requested production data, as these data have no bearing on the calculation of the emission netting credits.

Need copy of the SO2 emissions factor material balance for 23.92 lbs SO2/ton of coal charged in Appendix B, page 3 from SunCoke which is the basis of SunCoke's calculations for SO2 emissions

This agency has requested from the permit applicant the basis for the SO2 lb/ton factor. This information will be forwarded to you as we receive it. However, we do not feel that this data will have a material impact on the permit application.

Sincerely,
 Paul Tedtman
 Permits & Enforcement Area Supervisor
 Hamilton County Department of Environmental Services
 250 Wm. H. Taft Rd.
 Cincinnati, OH 45219
 513-946-7735 voice
 513-946-7778 fax
paul.tedtman@hamilton-co.org

NO.3 - AUGUST 7

From: lttsnook@aol.com [<mailto:lttsnook@aol.com>]
Sent: Thursday, August 07, 2008 2:01 PM

To: Ploetz, Mike

Subject: Re: Middletown Coke Company Draft Permit Comment Letter No.17

Mike, I understand that none of the information is in your office, but the information is needed to evaluate the netting and the Ohio EPA knows that. I am certain that AK Steel has the information on the sinter baghouse and No.2 and No.3 Boiler House Steam production plus fuel usage. Have you requested that AK Steel provide the information that I need and you need to do your job correctly? A permit to install needs to have the necessary reference data made available to the public. As you are aware, I have repeatedly asked for this information. I do not understand why the Ohio EPA did not require this information when reviewing the permit to install. Robert Snook

-----Original Message-----

From: Ploetz, Mike <Mike.Ploetz@hamilton-co.org>

To: lttsnook@aol.com

Cc: Tedtman, Paul <Paul.Tedtman@hamilton-co.org>; Miller, Brad

<Brad.Miller@hamilton-co.org>; Erika Wiggins <Erika.Wiggins@epa.state.oh.us>

Sent: Thu, 7 Aug 2008 12:54 pm

Subject: RE: Middletown Coke Company Draft Permit Comment Letter No.17

None of the information you requested is at our office. We have requested of SunCoke, their documentation that material balance proves that 23.92 lbs of SO2 are generated from coking a ton of coal. This will become public information when we receive it and will be provided to you.

Mike Ploetz

NO.4 - AUGUST 1

-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>

To: lttsnook@aol.com

Cc: Ploetz, Mike <Mike.Ploetz@hamilton-co.org>; Tedtman, Paul

<Paul.Tedtman@hamilton-co.org>; alan.lloyd@epa.state.oh.us; Erika Wiggins

<Erika.Wiggins@epa.state.oh.us>

Sent: Fri, 1 Aug 2008 4:09 pm

Subject: SO2 Production Rate

Mr. Snook,

The average production rate for the three test runs for the September 1995 Sinter Plant SO2 test was 125 tons/hour.

Brad Miller

Response to email on Aug.1, 10:38 pm

"Brad, I want proof. The one thing really upsets me is the Ohio EPA acceptance of any number AK Steel and SunCoke make up. I do not believe that they have any proof since the average SO2 emissions were 587lbs/hr for the three tests. This gives an average of 4.7 lbs/ton. AK Steel reported 4.0 lbs/ton for their emission factor which is 147 tons/hour. The reported AP-42 factor is 2.5 lbs/ton and the material balance based upon actual fuel consumption using an oxygen balance is 1.9 lbs SO2/ton. If they were ever in the ballpark on any of their emission factors I would not have written comment letters of 100 pages. Robert Snook"

NO. 5 - JULY 31

---Original Message----

From: lttsnook@aol.com

To: Brad.Miller@hamilton-co.org

Cc: Gupta.Kaushal@epamail.epa.gov; alan.lloyd@epa.state.oh.us;

Angelbeck.Richard@epamail.epa.gov; fryeb@sbcglobal.net; mike.ploetz@hamilton-co.org

Sent: Thu, 31 Jul 2008 9:38 pm

Subject: Fwd: Middletown Coke Company PTI

Brad, The collection system for the baghouse was totally enclosed system for the breaker, hot fines screening, cooler and hot fines bin which is shown on Ak Steel Drawing No. 366246 in your files. There was very little fugitive emissions and 6.8 uncontrolled emissions is for this system and the cold sinter screening. Fugitive emissions were not permitted for the breaker end baghouse and can not be added to the emissions netting calculations. I was a smoke watcher at the sinter plant after I retired for the last 9 months the sinter ran so I understand the system. The AK Steel Calculation included the unnecessary, confusing, and made up 95% of the total uncontrolled emissions for the breaker end baghouse as follows = $(6.8 \text{ lbs uncontrolled/ton}) \times (.95 \text{ of the total uncontrolled}) \times (1 - 0.9405 \text{ baghouse efficiency}) \times (807715 \text{ ton/yr sinter}) / 2000 = 155.23 \text{ tons per year}$. The proper calculation is = $(6.8) \times (.95) \times (1 - 0.99 \text{ baghouse efficiency}) \times (807715) / 2000 = 26.08 \text{ tons/yr}$. Please read my Comment Letter No.10, pages 50 to 52. This explains how the the netting calculations for the sinter plant breaker and cold screening should be done. I plan on discussing this at our meeting Tuesday. Robert Snook

-----Original Message-----

From: lttsnook@aol.com

To: Brad.Miller@hamilton-co.org

Cc: Gupta.Kaushal@epamail.epa.gov; mike.ploetz@hamilton-co.org;

paul.tedtman@hamilton-co.org; Lisa@StayInsideTheFence.com;

cwalker@vankleywalker.com; TLeeds@excelsiorsteel.com

Sent: Thu, 31 Jul 2008 3:53 pm

Subject: Re: Middletown Coke Company PTI

Brad: NO! That is incorrect. Look at the Email to you: "Responses to Brad Miller's 9/11/07 e-mail" The answer from AK Steel is: " AP-42 only listed uncontrolled emission factor for Sinter Plant breaker and screening operations. **We chose to separate the cold screening emissions from the overall breaker end emissions. Cold Screening emissions were estimated to be 5% of the total breaker end emissions. Therefore we assigned 95 % to the remaining breaker end emissions**" This email is included in Appendix D.

AK Steel **assumed 95%** of the emissions of the 6.8 uncontrolled lb/ton going to the baghouse and **assumed 5%** of the 6.8 uncontrolled lb/ton of the emissions going to the cold sinter screening of the **total 100%** uncontrolled emissions of 6.8 lbs/ton from the breaker, hot sinter screening, cooler, and cold sinter screening. The baghouse would remove 99% of all the emissions going to it. The capture rate for the breaker end baghouse is 100% of the emissions for the breaker, hot sinter screening, and cooler. 5 % does not escape into the atmosphere as fugitive emissions. That would be a major violation of fugitive emissions.

Conclusion: My calculations are correct and 20AK Steel's are wrong. Robert Snook

-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>

To: lttsnook@aol.com

Cc: Gupta.Kaushal@epamail.epa.gov; Ploetz, Mike <Mike.Ploetz@hamilton-co.org>;

Tedtman, Paul <Paul.Tedtman@hamilton-co.org>; alan.lloyd@epa.state.oh.us

Sent: Thu, 31 Jul 2008 1:20 pm

Subject: RE: Middletown Coke Company PTI

Mr. Snook,

The fabric filter at the Breaker End captures 95% of the emissions and operates with a 99% control efficiency. When you multiple the 95% capture by the 99% control you will obtain an overall control efficiency of 94.05%.

Brad Miller

From: lttsnook@aol.com [<mailto:lttsnook@aol.com>]

Sent: Tuesday, July 29, 2008 3:51 PM

To: Miller, Brad

Cc: Gupta.Kaushal@epamail.epa.gov

Subject: Re: Middletown Coke Company PTI

Brad, They used 94.05 % efficiency as listed in their table on Emission Factors and Stack Tests Referenced in July 9, 2008 Revised Sinter Plant Banking Document. AK Steel's calculation is = $(807175 \text{ ton/yr})(6.8)(1.0-9405 \text{ eff})/2000 = 155.23 \text{ tons per year}$. If they used 99% efficiency it would be = $(807715 \text{ tons/yr})(6.8)(0.01)/2000 = 27.46 \text{ tons per year}$. I believe they are way off, don't you?

-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>

To: lttsnook@aol.com

Sent: Tue, 29 Jul 2008 3:33 pm

Subject: RE: Middletown Coke Company PTI

Mr. Snook,

The Sinter plant breaker baghouse manufacturer was Amerex. AK Steel used a 99% control efficiency for this baghouse.

Brad Miller

From: lttsnook@aol.com [<mailto:lttsnook@aol.com>]

Sent: Monday, July 28, 2008 4:32 PM

To: Miller, Brad

Subject: Re: Middletown Coke Company PTI

Brad, What were the design guarantees by the sinter plant breaker baghouse manufacturer and who was the baghouse manufacturer? AK Steel has to have that information. Robert Snook.

-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>

To: lttsnook@aol.com

Sent: Mon, 28 Jul 2008 2:37 pm

Subject: RE: Middletown Coke Company PTI

Mr. Snook,

I have left a message and I am awaiting a call-back on the production rate information.

Brad Miller

From: lttsnook@aol.com [<mailto:lttsnook@aol.com>]

Sent: Monday, 20 July 28, 2008 1:34 PM

To: Miller, Brad

Cc: Coolahanlaw@yahoo.com; Gupta.Kaushal@epamail.epa.gov; czerniak.george@epa.gov

Subject: Re: Middletown Coke Company PTI

Brad, I do not believe that AK Steel never ran a test on the sinter plant breaker baghouse. They had a permit for 50 lb/hr discharge and you are telling me that no compliance test was never ran. AK Steel ran 7 tests on PM for the sinter plant windbox over the years of operation and NONE on the breaker end baghouse? What was the Ohio EPA for doing for all those years that the sinter plant operated? Do they think that they are going to use a made up ridiculous emission factor (0.384 lbs/ton instead of the published emission factor of 0.1 lb/ton - AP-42 Table 7.5-1) for the baghouse and get away with it? Not along as I am alive. Did you get any production tonnage on the SO2 test ran on the sinter plant windbox in Sept. 1995? Robert Snook

-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>

To: lttsnook@aol.com

Cc: alan.lloyd@epa.state.oh.us; Ploetz, Mike <Mike.Ploetz@hamilton-co.org>; Tedtman, Paul <Paul.Tedtman@hamilton-co.org>

Sent: Mon, 28 Jul 2008 12:14 pm

Subject: RE: Middletown Coke Company PTI

Mr.Snook,

Upon reviewing our files, we have no record of a stack test being conducted for the sinter plant breaker baghouse. The person who wrote the note about a future test is no longer with the agency. We contacted AK Steel and they confirmed a stack test was not run on the baghouse. There may have been an issue with the exhaust ductwork not meeting the requirements outlined in the test methods, thus a valid compliance test could not be conducted.

Brad Miller

From: lttsnook@aol.com [<mailto:lttsnook@aol.com>]

Sent: Wednesday, July 23, 2008 2:00 PM

To: Miller, Brad

Subject: Re: Middletown Coke Company PTI

Mike gave it to me last Thursday. It was in the 1990 Sinter plant stack test file or the a general file on the sinter plant. The date on the note is 3/29/90. The page is hand written and at the top it says "Pretest Armco Sinter; If you can not find it, I will fax you a copy.
Robert Snook

-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>

To: lttsnook@aol.com

Sent: Wed, 23 Jul 2008 1:45 pm

Subject: RE: Middletown Coke Company PTI

Mr. Snook,

We are checking our files to verify that a stack test was conducted in the early 1990's on the sinter plant breaker baghouse. In your comment letter you reference an Ohio EPA document which states that the baghouse will be tested later in 1990. Do you have the date of the document and what file it was in?

Thanks,

Brad Miller

From: lttsnook@aol.com [<mailto:lttsnook@aol.com>]
Sent: Wednesday, July 23, 2008 1:31 PM
To: Miller, Brad
Subject: Re: Middletown Coke Company PTI

Brad, Thank you. I have completed my review of the draft permit. Now all I need is the following report which I found referenced in your files last Thursday. This is a formal request for the following report:

- Sinter plant discharge end baghouse compliance test which was to be done in 1990.

Robert Snook

-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>
To: lttsnook@aol.com
Cc: alan.lloyd@epa.state.oh.us; Ploetz, Mike <Mike.Ploetz@hamilton-co.org>; Tedtman, Paul <Paul.Tedtman@hamilton-co.org>; Erika Wiggins <Erika.Wiggins@epa.state.oh.us>
Sent: Wed, 23 Jul 2008 1:00 pm
Subject: RE: Middletown Coke Company PTI

Mr. Snook,

A copy of the September 1995 stack test report for sulfur dioxide emissions from the sinter plant windbox that you requested was sent to you today via mail.

Thanks,

Brad Miller

;

From: lttsnook@aol.com [<mailto:lttsnook@aol.com>]
Sent: Thursday, July 17, 2008 11:49 AM
To: Miller, Brad
Cc: scraycraft@gmecc.com
Subject: Re: Middletown Coke Company PTI
Thank you. Robert Snook-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>
To: lttsnook@aol.com
Cc: alan.lloyd@epa.state.oh.us; Ploetz, Mike <Mike.Ploetz@hamilton-co.org>; Tedtman, Paul <Paul.Tedtman@hamilton-co.org>
Sent: Thu, 17 Jul 2008 9:47 am
Subject: RE: Middletown Coke Company PTI
Mr. Snook,

I have contacted AK Steel to request a copy of the full report.

Thanks,

Brad Miller

No. 6 - July 17

-----Original Message-----

From: Miller, Brad <Brad.Miller@hamilton-co.org>

To: lttsnook@aol.com

Cc: alan.lloyd@epa.state.oh.us; Ploetz, Mike <Mike.Ploetz@hamilton-co.org>; Tedtman, Paul <Paul.Tedtman@hamilton-co.org>

Sent: Thu, 17 Jul 2008 9:47 am

Subject: RE: Middletown Coke Company PTI

Mr. Snook,

I have contacted AK Steel to request a copy of the full report. Thanks, Brad Miller

From: lttsnook@aol.com [mailto:lttsnook@aol.com]

Sent: Wednesday, July 16, 2008 8:42 PM

To: Miller, Brad

Subject: Fwd: Middletown Coke Company PTI

Brad, do you have a complete copy of this report on October 10, 1995? Robert Snook

-----Original Message-----

From: lttsnook@aol.com

To: mike.ploetz@hamilton-co.org

Sent: Wed, 16 Jul 2008 5:13 pm

Subject: Middletown Coke Company PTI

Mike, AK Steel used a report done by Envisage Environmental Incorporated for the Sinter Plant Windbox P908 on October 10, 1995. Only four pages of that report were included in their PTI in Appendix D. I am requesting a complete copy of the entire report from AK Steel to evaluate their emission factor of 4.0 lbs SO2/ton of sinter. Thank you.
Robert Snook

NO.7 EMAIL

-----Original Message-----

From: lttsnook@aol.com

To: Paul.Tedtman@hamilton-co.org

Cc: Gupta.Kaushal@epamail.epa.gov; Angelbeck.Richard@epamail.epa.gov;

blakley.pamela@epamail.epa.gov; cwalker@vankleywalker.com;
mbamberger@baverlaw.com
Sent: Fri, 8 Aug 2008 4:41 pm
Subject: Re: Middletown Coke Company Draft Permit Comment Letter No.17

Paul, I gave you the proper calculation at the meeting on August 7, 2008. The formula is: Coke Sulfur = (1.13)(Coal Sulfur) -0.33. The calculation for SO2 emissions is 17.42 lbs/ton of wet coal for a coal sulfur of 1.3%. The % sulfur that stays in the coke is about 64.8%. SunCoke knows better than this. They have a main stack emission factor of 1.6 lb SO2/ton of wet coal at Haverhill. They reported 11.0 lbs SO2/ton of wet coal when they used the bypass vents for 14 days. The Ohio EPA should have SunCoke produce the actual results of their coke quality at Haverhill for the basis of their calculations. At Haverhill they submit their coke quality to the Federal Government every quarter and the coal sulfur to the Ohio EPA every quarter. No guessing needed in this calculation. There is no way that 50% of the sulfur goes to the flue gas. This is not acceptable. Robert Snook

-----Original Message-----

From: Tedtman, Paul <Paul.Tedtman@hamilton-co.org>
To: ltsnook@aol.com
Cc: Ploetz, Mike <Mike.Ploetz@hamilton-co.org>; Gupta.Kaushal@epamail.epa.gov;
Angelbeck.Richard@epamail.epa.gov; alan.lloyd@epa.state.oh.us;
erika.wiggins@EPA.State.Oh.us; Miller, Brad <Brad.Miller@hamilton-co.org>
Sent: Fri, 8 Aug 2008 3:09 pm
Subject: RE: Middletown Coke Company Draft Permit Comment Letter No.17

Dear Mr. Snook:

I have noted your request for a public comment period extension and have forwarded that request to Ohio EPA, as that is under their authority.

Below is the material balance for the SO2 limitation, as you had requested in item number 4 from your e-mail dated Aug. 7, 2008. I believe this method and numbers to be correct and therefore, requires no revision of the draft permit.

Sincerely, Paul

CALCULATED EMISSION FACTOR: 1 bs. SO2/wet ton coal

The Middletown Coke Company PTI application number 14-06023, on the summary calculation sheet, states a calculated emission factor of 23.92 lbs SO2/wet ton coal.

The basis for this is as follows:

- Coal moisture = 8.0%
- Coal sulfur = 1.3%
- one ton = 2,000 lbs.

$$\text{Lbs. sulfur/ wet ton coal} = (1.0 - 0.08) (2,000) (0.013) = 23.92$$

23.92 Lbs. sulfur/ wet ton coal is the correct amount of sulfur in the coal charged to the ovens.

In addition, note that:

- 50-60% of the sulfur in the coal stays in the coke, and
- 1 pound of sulfur (MW = 32) produces 2 pounds of SO₂ (MW = 64)

Conservatively, assume 50% of the sulfur in the coal goes to the fluegas and 50% remains bound in the coal.

Sulfur to flue gas/wet ton coal = $23.92 \times 0.50 = 11.96$ lbs sulfur to flue gas/wet ton coal

S converted to SO₂ in flue gas/wet ton coal = $11.96 \times 2 = 23.92$ lbs SO₂/ton wet coal

Therefore, 23.92 lbs SO₂/ton wet coal is correct.

**MIDDLETOWN COKE COMPANY DRAFT PTI 14-06023
COMMENT LETTER NO.17**

To: Mike Ploetz
Hamilton County, Department of Environmental Services
Air Quality Program
250 William Howard Taft Road
Cincinnati, Ohio 45219

From: Robert Snook
274 Scott Alan Dr.
Monroe, Ohio 45050
Phone 513-593-7171
Email address lttsnook@aol.com

Subject: Middletown Coke Company PTI Application 14-06023

This is a summary of the meeting held on 11 AM Tuesday August 5 at Cincinnati, Ohio EPA Office.

Those present: Mike Ploetz, Alan Lloyd, Erika Wiggins, Paul Tedtman, Lisa Frye, Robert Snook, Kaushal Gutpa, Richard Angelbeck

1. Needed Information from Brad Miller to properly comment on Draft Permit:

- Need actual sinter plant production recorded during Sept. 1995 Sinter Plant Windbox SO₂ Testing-

Answer from Ohio EPA: No production data is available.

- Need compliance test results on Sinter Plant Breaker Baghouse: source P938 and actual Baghouse Engineering Specifications and Guarantee Testing by Manufacturer

Answer from Ohio EPA: None available

- Need copy of No.2 and No.3 Boiler House daily steam production records and fuels used during netting period to evaluate claimed NO_x reduction

Answer from Ohio EPA: None. Robert Snook has repeatedly officially requested these records that are necessary for the netting of NO_x. Robert Snook believes that the Ohio EPA is in violation of the required Ohio R.C. # 149.43(B)(1). The Ohio EPA needs to produce these records plus the needed information listed above per Ohio Public Records Code.

- Need copy of the SO₂ emissions factor material balance for 23.92 lbs SO₂/ton of coal charged in Appendix B, page 3 from SunCoke which is the basis of SunCoke's calculations for SO₂ emissions

Answer from Ohio EPA: None

2. Nov. 1993 Sinter Plant Windbox Testing for NO_x: actual production verses reported. Robert Snook reviewed the testing data. Run No.3 had no record of the starting tonnage and is invalid. The average lb NO_x/ton of sinter produced for Run No.1 and Run No.2 is 0.61. Robert Snook submitted Comment Letter No. 16 to the Ohio EPA on this subject.

3. No.2 Boiler House Netting:

- Genevieve Damico netting period comment

Answer: Ohio EPA disagrees with Genevieve Damico. Robert Snook agrees with her.

- Where is the actual overall NO_x emissions reduction?

Answer: Ohio EPA stated AK Steel now claims 97% reduction. Robert Snook wants the records so that the actual reduction can be calculated.

4. AK Steel Sinter Plant Emissions Reductions for PM

- Raw Materials – Limestone only vs. all raw materials and required dust suppression for emission factor calculation.

Answer: Robert Snook reviewed Comment Letter No.15 he submitted to the Ohio EPA.

- Windbox - Two invalid tests runs use in emission factor calculation

Answer: Robert Snook reviewed the invalid testing which exceeded the permit limit of 50 lbs/hr which was used in the calculations

- Breaker Baghouse - WCI- only valid testing per US EPA

Answer: Robert Snook reviewed EPA – 453/R-01-005 report.

- Cold Sinter Screening:

Answer: Robert Snook reviewed AP-42 Table 12-5-4 for cold sinter screening which is 0.026 lbs/ton instead of 0.34 lbs/ton used by AK Steel.

5. Daily Production rates

- 10 ovens charged and pushed per hour must be 3 ovens charged and pushed

Answer: Ohio EPA stated that they support 10 ovens charged per hour. Robert Snook feels that it will overload the gas cleaning system. Ohio EPA stated that there is a continuous SO₂ monitor on the stack. Robert Snook stated that he does not trust SunCoke to tell on themselves and there is no COM on the stack so the baghouse can be easily overloaded for particulate matter.

- Limit on daily coal charge of 2620 tons per day and 52 pushes per day

Answer: Ohio EPA had no comment. Robert Snook said that the fugitive emissions will be high if they overload the plant.

- Minimum coking time and maximum coal

Answer: Ohio EPA had no comment. Robert Snook said the quench tower will be overloaded with green coke and therefore there will be excessive particulate matter discharge. Visual inspections as required by the Ohio EPA by SunCoke employees are worthless. There should be a minimum coking time of 47 hours and a maximum coal weight of 52 tons.

6. Charging method not BAT as being used at FDS Coke in Toledo

Answer: Ohio EPA stated that since this plant is being permitted under netting BAT does not count.

7. Coal Blend can not exceed 1.1 % sulfur for Middletown Blast Furnace

Answer: Ohio EPA does not care about the coke quality. They are going to give SunCoke 1.3% sulfur coal blend so that they can have a higher emissions factor making it easier to meet. Robert Snook stated that the maximum coal blend sulfur can only be 1.1% because this is a 100% contract for AK Steel and the rest of the steel industry blast furnaces could not use coke greater than 0.9 % sulfur.

8. The emission factor for SO₂/wet ton coal is 16.36 lbs/ton per material balance

Answer: Ohio EPA disagrees.

9. BAT is at FDS for SO₂ at 0.99lbs/ton wet coal charged from the main stack

Answer: Ohio EPA stated that this plant is using netting and does not have meet that standard.

10. Venting bypass stacks only 8 days allowable vs. 15 days in permit

Answer: Ohio EPA did not comment. Robert Snook stated that Haverhill and FDS are only allowed eight days.

11. SO2 Main Stack reporting using simple material balance

Answer: Ohio EPA thinks it is unnecessary to do a material balance since there is a continuous SO2 meter on the stack. Robert Snook believes that the SO2 is just another form from unverifiable reporting and is on line about 95% of the time. A material balance tells the true over the entire reporting period. The Ohio EPA stated that they could lie about the amount of lime usage. Robert Snook said they can lie one month but next month they will come up short because you can not have a negative inventory. All shipments of lime and sludge are weighed and accounting records must be kept and therefore verifiable at any time. It is the best available technology and recording keeping is part of the BAT.

12. Use of COM required per US EPA Coke Oven Regulations

Answer: Ohio EPA stated that is not required for a non recovery coke plant but for a byproducts coke plant and is unnecessary. Robert Snook verified that is true in the regulations. That is ridiculous but true. The COM is the best available technology for the measurement of opacity instead of visual observer which is required by law. COM should be required to monitor opacity because of the Ohio Air Pollution Nuisance law 3745-15-07.

13. Use of Enclosures for emission reductions by SunCoke-

Answer: Ohio EPA did not comment. Robert Snook state that the USEPA does not allow enclosures for emission reductions.

July 28, 2008

**MIDDLETOWN COKE COMPANY DRAFT PTI 14-06023
COMMENT LETTER NO.1**

To: Mike Ploetz
Hamilton County, Department of Environmental Services
Air Quality Program
250 William Howard Taft Road
Cincinnati, Ohio

From: Robert Snook
274 Scott Alan Dr.
Monroe, Ohio 45050
Phone 513-593-7171
Email address lttsnook@aol.com

Subject: Middletown Coke Company PTI Application 14-06023

1. First Comment

In the Draft Permit Section B. Facility-Wide Terms and Conditions in paragraph 3 has an unlabeled table "Coke Plant Allowable in tons per year". (page 12) **This table as two major errors that must be corrected, the draft permit reissued, and the comment period extended the number of days it takes to reissue the draft permit:**

1. The P001 coke quenching PM is listed as 204.4 tons/year. The actual calculated value in the Appendix B is 54.75 tons/year in calculation 8.
2. The table only lists one PM10(which one?). There are two PM10: Total and Filterable and both must be listed.

The error for the coke quenching PM is also listed on page 47 as follows:

Operations, Property and/or Equipment Description: P001 - Quench Tower

a) All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) none.

b) Applicable Emissions Limitations and/or Control Requirements

Filterable particulate emissions (PE) from this emissions unit shall not exceed 224.0 pounds per hour and 204.4 tons per year as a rolling, 12-month summation. This is in error and is 54.75 tons per year as a rolling, 12 month summation.

2. Second Comment

In the Draft Permit Section B. Facility-Wide Terms and Conditions in paragraph 3 has an unlabeled table "Emissions credits from AK Steel".(page 13) This table as two major errors that should be corrected and the draft permit reissued:

1. The table only lists one PM10 (which one?). There are two PM10: Total and Filterable and both must be listed.
2. The Windbox (emissions unit F908) shows PM10 at 155.32 tons /year. This is incorrect and show be changed to 120.19 tons/year as listed in Appendix D AK Steel Emission Reductions.

3. Third Comment

In addition this is a **formal request** for all emissions testing reports on the sinter plant Breaker end emissions unit F936 baghouse including initial emission discharge guarantee testing and engineering design specifications from AK Steel. **I got a drawing of the**

baghouse collection system, AK Steel Drawing No. 366246, from the Ohio EPA files. Also in the Ohio EPA files is a note that states "This device is separately permitted & will be tested later in 1990." F936 baghouse was permitted at 50 lb/hr and had to be tested for compliance at least once. The Ohio EPA has the obligation to get the compliance test on F936. I can not properly evaluate the netting calculations without this information.

4. Fourth comment

I made a formal request on Wed. July 16, 2008 for the complete report that AK Steel was done by Envisage Environmental Incorporated for the Sinter Plant Windbox P908 on October 10, 1995. Brad Miller has requested the report from AK Steel. Only four pages of that report were included in their PTI in Appendix D. I am requesting a complete copy of the entire report from AK Steel to evaluate their emission factor of 4.0 lbs SO₂/ton of sinter. I can not properly evaluate the netting calculations without this report.

5. Fifth Comment

In the Draft Permit Section B. Facility-Wide Terms and Conditions in paragraph 3 it states "As part of this application Middletown Coke is using emission credits for the installation of pilot flame safety burners at the Number 2 Boiler House at the AK Steel Middletown facility (Premise Number 1409010006). AK Steel shall operate and maintain the pilot flame safety burners on emissions units B007, B008, B009, and B010 in order to ensure the emission reduction credit noted below." (page 13)

And goes on to say "the NO_x credits have been calculated by the difference in the pilot burner sizes before the project compared to the reduction in the pilot flame safety burner sizes after the project has been implemented multiplied times the average pilot flame safety operating hours for the four boilers during the 24 consecutive months from June 4, 2005 through June 3, 2007 as denoted in the Middletown Coke Company's air permit to install application dated February 2008, under the AK Steel's Emission Reduction tab."

For the netting calculations in Appendix D, AK Steel **assumed 100% savings in natural gas and fuel oil** for every hour of operation of each of the four boilers at No. 2 Boiler House of the difference between the sixteen pilot burners which were rated at 2.6 MM Btu/hr and the new 0.03 MM Btu/hr burners without providing any proof. This gives a savings of 49.5 tons NO_x/year. **This simply is not true!**

The only way to determine the actual savings in natural gas reduction is to go back to the 24 months on a day by day basis and when an hour by hour analysis of the fuel consumptions at No.2 and No.3 Boiler Houses. **This is a formal request for a copy of the daily steam production records for No. 2 and No.3 Boiler Houses for each boiler and the total use of each fuel in the daily production of steam from June 4, 2005 to June 3, 2007.** I can not properly evaluate the netting calculations without this information.

The primary fuel for No. 2 Boiler House is blast furnace gas. The primary fuel for No. 3 Boiler House is waste heat from the four slab furnaces. When there is not enough blast furnace gas and waste heat from the slab furnaces either natural gas or fuel oil is added to either No.2 and/or No.3 Boiler Houses. Anytime there is either natural gas or fuel oil is added to either No.2 and/or No.3 Boiler Houses there is reduced or no savings of the 41.1 MM Btu/hr claimed by AK Steel. That occurs quite often when there is a blast furnace outage, a reduction in wind on the blast furnace, a hot strip mill downturn, a slab furnace outage, or the steam load in the plant exceeds the capacity of the waste heat available.

Figure 1 Middletown Total Steam Production



Cutting the amount of pilot natural gas to No.2 Boiler House will not result in a reduction in Nox emissions when the following conditions exist:

When there is any use of the natural gas burners at No.2 Boiler House or any use of the Natural Gas Burners, Fuel Oil Burners, or Natural Gas Mixing Station into the Coke Oven Gas into any of the four boilers at No.3 Boiler House.

No.6 Sixth Comment:

How can the OHIO EPA begin the comment period when you do not have vital information available to the public?

19. Subject: Middletown Coke Company PTI 14-06023 No.2 Boiler House NOx

AK Steel is using netting of NOx from the shutdown AK Steel Sinter Plant and a recent reduction of NOx at the No.2 Boiler House at the AK Steel Blast Furnace.

The 24 month netting date period for the sinter plant and the boiler house are different. I called Genevieve Damico of the Federal EPA who stated that the 24 month netting period **must be the same for both the sinter plant and boiler house for each major pollutant**. She stated that I should send her boss a formal request for a ruling on that question.

- The netting period used for the sinter plant is June, 1999 to May 2001.
- The netting period used for the boiler house is June 4, 2005 through June 3, 2007.

For the netting calculation, AK Steel used assumed 100% savings in natural gas and fuel oil for every hour of operation of each of the four boilers at No. 2 Boiler House of the difference between the sixteen pilot burners which were rated at 2.6 MM Btu/hr and the new 0.03 MM Btu/hr burners.

This simply is not true!

The truth is the only time that there is any savings in fuel (NOx reduction) is when there is no additional natural gas or fuel oil being added to **produce steam at No.2 and No.3 Boiler Houses for the entire Middletown Works.**

The primary fuel for No. 2 Boiler House is blast furnace gas. The primary fuel for No. 3 Boiler House is waste heat from the four slab furnaces. When there is not enough blast furnace gas and waste heat from the slab furnaces either natural gas or fuel oil is added to either No.2 and/or No.3 Boiler Houses. Anytime there is either natural gas or fuel oil is

added to either No.2 and/or No.3 Boiler Houses there is reduced or no savings of the 41.1 MM Btu/hr claimed by AK Steel. That occurs quite often when there is a blast furnace outage, a reduction in wind on the blast furnace, a hot strip mill downturn, a slab furnace outage, or the steam load in the plant exceeds the capacity of the waste heat available.

The only way to determine the actual savings in natural gas reduction is to go back to the 24 months from June, 1999 to May, 2001 on a day by day basis and when an hour by hour analysis of the fuel consumptions at No.2 and No.3 Boiler Houses. If the No.2 Boiler House is not running at full capacity and No.3 Boiler House is using supplemental fuel of natural gas or fuel oil, then the savings is reduced by the amount of supplemental fuel at No.3 Boiler House. If No. 2 Boiler House is using additional natural gas or fuel oil, then the savings is reduced by that amount.

I guarantee that the savings is not 100%. The actual savings must be determined by actual fuel uses at No.2 and No.3 Boiler Houses. This information should be available on an hour by hour accounting of all the fuel used and steam produced at both boiler houses by AK Steel Energy Management Department for June, 1999 to May, 2001.

April 2, 2008

To: Mike Ploetz
Hamilton County, Department of Environmental Services
Air Quality Program
250 William Howard Taft Road
Cincinnati, Ohio

From: Robert Snook
274 Scott Alan Drive
Monroe, Ohio 45050

Subject: Middletown Coke Company PTI 14-06023

These are comments on the sulfur dioxide emissions from the proposed coke plant. I hope you come to the same conclusion that I have. This application definitely needs to have a public hearing which I am requesting. I will fax you all referenced material on Monday April 7.

The DNA of a Coke Plant is a material balance based upon actual accounting data which all companies must keep. The best way to accurately determine the amount of sulfur dioxide emissions is an actual monthly sulfur material balance instead of unreliable instrumentation, human observation, estimated flow volumes, and old referenced data from other coke plants which is allowable under existing permits. The Ohio EPA should "rethink" its permit requirements for sulfur dioxide emissions for non recovery coke plants and use accurate available information to determine compliance over the entire

reporting period which should be monthly. The following is my review of the proposed sulfur dioxide emissions.

The Ohio EPA should require SunCoke to submit a sulfur material balance on the existing Haverhill Coke Plant based upon the yearly operating production results of 2007 which will show the actual total sulfur dioxide emissions at Haverhill to ensure compliance before issuing a permit for a new coke plant in Middletown, Ohio.

20.. ---Original Message---

From: lttsnook@aol.com

To: alan.lloyd@epa.state.oh.us

Cc: Gupta.Kaushal@epamail.epa.gov; Angelbeck.Richard@epamail.epa.gov; ajs@sagady.com; cwalker@vankleywalker.com; carl_batliner@aksteel.com; alan_mccoy@aksteel.com; lisa@suncokewatch.com; fjslaw@gmail.com; ursosju25@hotmail.com; chris.korleski@epa.state.oh.us; jinwood@nickbiz.com; giddyup1063@yahoo.com; suzi@rubinfarm.com; james_wainescott@aksteel.com; david_horn@aksteel.com

Sent: Sat, 6 Sep 2008 11:48 am

Subject: Baseline emissions vs. contemporaneous emissions

Alan, I think you do not understand the difference between baseline emissions and contemporaneous emissions.

1. Baseline actual emissions are actual emissions calculated for an existing emissions unit for any consecutive 24 months of source operation within the past 10 years.
2. Contemporaneous emissions are the creditable increases and decreases in emissions that have occurred between the date 5 years before construction of the particular change commences and the date the increase from that change occurs.

In order for the emissions to be creditable in the five year contemporaneous period they had to exist in the 10 year baseline period. You need to review the New Source Review Workshop Manual pages A35 to A50

You allowed AK Steel to use a **baseline emissions calculation instead of a contemporaneous emissions calculation for netting**. That is wrong. Contemporaneous emissions must be used for netting calculations. Think about it before you approve the draft permit for Middletown Coke Company.

See your email below to Heather. Robert Snook

>>> Alan Lloyd 6/17/2008 10:29 AM >>>

Heather;

I will try and explain the best I can.

In general when one is using credits in this case AK Steel's sintering plant credits of emissions against Middletown Coke Company's install of the coke oven plant as you have identified the term, one uses the following definition in OAC rule 3745-31-010:

"For an existing emissions unit other than an electric utility steam generating unit, **baseline actual emissions** means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive twenty-four-month period selected by the owner or operator within the ten-year period immediately preceding either the date the owner or operator begins actual construction of the NSR project, or the date a complete permit application is received by the director for a permit required either under this rule or under a plan approved by the administrator, whichever is earlier, except that the ten-year period shall not include any period earlier than November 15, 1990."

In the case of Middletown Coke Company using AK Steel's sinter plant emissions as credits, see the following statement: "the two year period within the last ten years, as allowed in OAC rule 3745-31-01, is from June 1999 thru May 2001 based upon production and operating hours as denoted in the Middletown Coke Company's air permit to install application dated February 2008, under the AK Steel's Emission Reduction tab."

So as you can see the rules allow for a very long period of time for credits. Ten year period in this case. So what that means is that for a netting permitting action using credits of existing emission operations that have shut down against the installation of new air contaminant sources and/or increase in emissions of existing operations a company can use credits as far back as ten years.

21. ---Original Message---

From: Gupta.Kaushal@epamail.epa.gov

To: Alex J. Sagady & Associates <ajs@sagady.com>; ltsnook@aol.com; Christopher Walker <cwalker@vankleywalker.com>

Cc: Blakley.Pamela@epamail.epa.gov; Angelbeck.Richard@epamail.epa.gov

Sent: Thu, 4 Sep 2008 2:21 pm

Subject: Fw: Comments on Middletown Coke Company PTI 14-06023

Dear Messrs. Sagady, Snook and Walker:

As you have requested, below are USEPA's comments on the Middletown Coke Company draft Permit to Install, submitted to Ohio EPA today. Please let me know if you have any questions. I appreciate the insights you have shared with us on this source.

Sincerely,

Kaushal Gupta

USEPA Region 5 Air Permits Section

----- Forwarded by Kaushal Gupta/R5/USEPA/US on 09/04/2008 01:12 PM

From: Kaushal Gupta/R5/USEPA/US
To alan Lloyd"
<alan.lloyd@epa.state.oh.us
ccPamela Blakley/R5/USEPA/US@EPA,
Richard Angelbeck/R5/USEPA/US@EPA

09/04/2008 12:01:PM >

Subject Comments on Middletown Coke Company PTI 14-06023

1. We are uncertain as to whether, for netting purposes, the 5-year contemporaneous time period began with the cessation of the sinter plant's operation in June 2003 or its dismantling in 2004. Because netting policy emphasizes that creditable shutdowns needs to be permanent, the dismantling in 2004 could be the key event. However, an important factor to consider is intent, and it seems from the December 2003 letter the company sent to you as well as the SEC filing the company made in 2003 that its intent was for the shutdown to occur in June 2003. Another factor to consider is how Ohio EPA responded to the company's notice. Could you tell us whether you made the change in the STARS permit tracking system in response to the December 2003 letter or in response to the 2004 dismantling?

2. Why does the NOx netting for the sinter plant use a different netting period (1999 to 2001) from the boiler house (2005 to 2007)?

3. Is it not possible to use NOx sinter plant data more recent than 1993? From the 7/1/08 conference call, we were told that there has been little testing data because there had been no NOx emission limits, but then how is AK Steel Middletown able to use 1991 to 2001 as the netting period for the sinter plant?

4. For the boiler house, what is the netting reduction for NOx? Our understanding from the 8/5/08 conference call is that this is being changed from the application's 100% reduction assumption, and that it should really be between 20% and 40%.

5. From our 7/1/08 conference call, we were told that AK Steel's visual observation-based estimate of 25% of TSP being PM-10 would be changed in light of the promulgation of the PM-2.5 rule. Has AK Steel Middletown re-evaluated its estimates?.

6. Understanding that particle size distribution analyses are generally unreliable to calculate PM-10/PM-2.5 emissions from Method 5 (Total PM) data, is there a reason why Middletown is using the only limestone emission factor rather than a range of emission factors including limestone and other raw materials??

7. As Robert D. Snook, a former manager at AK Steel, mentioned in his comment letter no. 1, shouldn't the emission factor for baghouse-controlled emissions (0.1) be used instead of the one for uncontrolled emissions (6.8) since a baghouse is being used on the

breaker and hot screens?

8. In the portions of the draft permit stating "In accordance with the permittee's permit application, the permittee has committed to...", does this language have the same legal effect as "the permittee is required to..." ?

9. Page 29 of the draft permit requires total enclosure for coal crushing. What is the nature of the enclosure (e.g. inside a permanent building)?

10. Item (k) on p. 65 of the draft permit requires the source to modify its operations if the sulfur content goes beyond 1.3% in order to assure compliance with the SO₂ limits. However, Mr. Snook has raised doubts that Middletown will actually be burning 1.3% sulfur coal, saying that the percentage should be lower. Although the permit already requires monthly sulfur content analysis, is there any existing documentation, such as contracts or prior coal sampling reports, showing that the sulfur content will be as high as 1.3%? The only place in the permit application I see the 1.3% figure is the source's BAT proposal (p. 3-5 of the application).

11. Item (c)(3) on p. 66 of the draft permit allows the coke ovens to be charged/pushed 10 times per hour. This seems much higher than what we have observed at other coke plants, and Mr. Snook has commented that 3/hour would be more realistic. Has the company demonstrated an ability and intent to charge/push this frequently, and are the permit's allowable emissions based on 10/hour?

Thank you for considering our comments.

Kaushal Gupta
USEPA Region 5 Air Permits Section
