



Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

June 11, 2004

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
www.in.gov/idem

TO: Interested Parties / Applicant  
RE: Nucor Steel / 107-19155-00038  
FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER.dot 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
*We make Indiana a cleaner, healthier place to live.*

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Mike Keller  
Nucor Steel  
4537 South Nucor Road  
Crawfordsville, IN 47933

June 11, 2004

Re: **107-19155-00038**  
Permit Modification to PSD 107-16823-00038

Dear Mr. Keller:

On November 21, 2003, Nucor Steel was issued a Prevention of Significant Deterioration permit (PSD 107-16823-00038) for the modification of the mill. This PSD permit required Nucor Steel to install and operated continuous emission monitoring systems (CEMS) for the electric arc furnaces exhausts. On May 20, 2004, the Office of Air Quality (OAQ) received a permit modification request to extend the schedule of the compliance certification of these monitors to July 15, 2004.

Based on the information submitted by Nucor Steel and pursuant to IC13-15-7-1, Condition D.1.12 of PSD permit 107-16823-00038 is hereby modified as follows:

- D.1.12 CO, SO<sub>2</sub>, and NO<sub>x</sub> Continuous Emission Rate Monitoring Requirement  
[326 IAC 2-2] [326 IAC 3-5]
- (a) CO, SO<sub>2</sub>, and NO<sub>x</sub> CEMS
    - (i) Pursuant to 326 IAC 2-2 (PSD) and 326 IAC 3-5-1(d), the Permittee shall install, calibrate, certify, operate, and maintain continuous emissions monitoring systems (CEMS) for measuring CO, SO<sub>2</sub>, and NO<sub>x</sub> emissions rates in pounds per hour from the Meltshop EAFs, in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3.  
  
The Permittee shall comply with the PSD BACT SO<sub>2</sub> and NO<sub>x</sub> hourly emission rates by averaging the CEMS readings based on the actual hours of operation in a 24-hour period.
    - (ii) CEMS for Existing Vents  
The CEMS installed to measure the emissions through the existing vent shall be calibrated no later than **July 15, 2004**.



From the initial start up of the modified Meltshop EAFs to July 15, 2004, the Permittee shall calculate the emission rates (in pounds per hour) based on the measured parts per million concentrations and maximum flow rates.

- (iii) CEMS for Baghouse Stack  
The CEMS installed to measure the emissions through the EAF baghouses stack shall be calibrated within 180 days of the installation of the new Meltshop EAF Baghouse2.
- (iv) The location of these CEMS to measure the Meltshop EAFs emissions shall be approved by OAQ prior to their installation.
- (b) The Permittee shall submit to IDEM, OAQ, within ninety (90) days after complete monitor installation, a complete written continuous monitoring standard operating procedure (CMSOP), in accordance with the requirements of 326 IAC 3-5-4.
- (c) The Permittee shall record the output of the systems in pounds per hour and shall perform the required record keeping and reporting, pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.

All other conditions of permit PSD 107-16823-00038, its amendments and modifications shall remain unchanged and in effect. This permit decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions regarding this permit modification please contact Ms. Iryn Calilung of my staff at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015 or by telephone at (317) 233-5692 or toll free at 1-800-451-6027 extension 3-5692 or at icalilun@dem.state.in.us.

Sincerely,

Original signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachment: TSD of Permit Modification 107-19155-00038

cc: File – Montgomery County  
Montgomery County Health Department  
Air Compliance Section Inspector – RS  
Compliance Data Section - KA  
Technical Support and Modeling - MB  
Part 70 Operating Permit Reviewer – MG

**Indiana Department of Environmental Management  
Office of Air Quality**

Technical Support Document (TSD)  
Permit Modification to a PSD Permit

<b>Source Background and Description</b>
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Source Name:	Nucor Steel
Source Location:	4537 South Nucor Street, Crawfordsville, IN 47933
Mailing Address:	4537 South Nucor Street, Crawfordsville, IN 47933 RR2, Box 311, Crawfordsville, IN 47933
County Location:	Montgomery
SIC Code:	3312 (Steel Mill)
Source Categories:	1 of 28 Listed Source Categories Major PSD Source Major Source, CAA Section 112
PSD/SSM:	107-19155-00038
Permit Writer:	Iryn Calilung 317/233-5692 icalilun@dem.state.in.us

<b>Description of the Proposed Revision</b>
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On November 21, 2003, Nucor Steel was issued a PSD permit (107-16823-00038) for the modification of their meltshop operations. Condition D.1.12 of this PSD permit required Nucor Steel to install and operated continuous emission monitoring systems (CEMS) for the electric arc furnaces exhausts.

Condition D.1.12 as currently written is shown below:

D.1.12 CO, SO<sub>2</sub>, and NO<sub>x</sub> Continuous Emission Rate Monitoring Requirement [326 IAC 2-2] [326 IAC 3-5]

- (a) CO, SO<sub>2</sub>, and NO<sub>x</sub> CEMS
- (i) Pursuant to 326 IAC 2-2 (PSD) and 326 IAC 3-5-1(d), the Permittee shall install, calibrate, certify, operate, and maintain continuous emissions monitoring systems (CEMS) for measuring CO, SO<sub>2</sub>, and NO<sub>x</sub> emissions rates in pounds per hour from the Meltshop EAFs, in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3.

The Permittee shall comply with the PSD BACT SO<sub>2</sub> and NO<sub>x</sub> hourly emission rates by averaging the CEMS readings based on the actual hours of operation in a 24-hour period.

- (ii) CEMS for Existing Vents  
The CEMS installed to measure the emissions through the existing vent shall be calibrated no later than 180 days from the initial start up of the modified Meltshop EAFs.
- (iii) CEMS for Baghouse Stack  
The CEMS installed to measure the emissions through the EAF baghouses stack shall be calibrated within 180 days of the installation of the new Meltshop EAF Baghouse2.
- (iv) The location of these CEMS to measure the Meltshop EAFs emissions shall be approved by OAQ prior to their installation.

- (b) The Permittee shall submit to IDEM, OAQ, within ninety (90) days after monitor installation, a complete written continuous monitoring standard operating procedure (CMSOP), in accordance with the requirements of 326 IAC 3-5-4.
- (c) The Permittee shall record the output of the systems in pounds per hour and shall perform the required record keeping and reporting, pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.

On May 20, 2004, Nucor Steel submitted a permit modification application requesting to extend the schedule of the compliance certification for these emissions monitors to July 15, 2004. This request is due to the additional time for the installation of the flow meters of the continuous emission monitoring systems (CEMS). As Nucor Steel indicated, the rest of the monitoring systems have been installed, however, the flow meters are needed to be installed in a different configuration to provide accurate and certifiable data.

There is no new construction involved in this permit modification application.

<b>Emission Calculations</b>
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There is no expected change in permitted emissions due to this revision.

<b>County Attainment Status</b>
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- (1) **Montgomery County**  
The source is located in Montgomery County. The table below shows the attainment status of Montgomery County.

Table 1	Montgomery County
Pollutant	Status
PM <sub>10</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (2) Volatile organic compounds (VOC) and Ozone  
VOC are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Montgomery County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD) 326 IAC 2-2.
- (3) **Criteria Pollutants**  
Montgomery County has been classified as attainment or unclassifiable for all the other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

### State and Federal Rule Applicability Determination

- (1) There are no new additional federal and state requirements due to this revision.
- (2) There are no changes to existing applicable federal and state requirements due to this revision.

### Permit Modification

- (1) The existing PSD permit 107-16823-00038 is revised pursuant to IC13-15-7-1.
- (2) Condition D.1.12 is revised as follows (new requirements are in **bold** fonts and deleted items are in ~~strikeout~~ fonts):

#### D.1.12 CO, SO<sub>2</sub>, and NO<sub>x</sub> Continuous Emission Rate Monitoring Requirement

[326 IAC 2-2] [326 IAC 3-5]

(a) CO, SO<sub>2</sub>, and NO<sub>x</sub> CEMS

- (i) Pursuant to 326 IAC 2-2 (PSD) and 326 IAC 3-5-1(d), the Permittee shall install, calibrate, certify, operate, and maintain continuous emissions monitoring systems (CEMS) for measuring CO, SO<sub>2</sub>, and NO<sub>x</sub> emissions rates in pounds per hour from the Meltshop EAFs, in accordance with 326 IAC 3-5-2 and 326 IAC 3-5-3.

The Permittee shall comply with the PSD BACT SO<sub>2</sub> and NO<sub>x</sub> hourly emission rates by averaging the CEMS readings based on the actual hours of operation in a 24-hour period.

- (ii) CEMS for Existing Vents

The CEMS installed to measure the emissions through the existing vent shall be calibrated no later than ~~180 days from the initial start up of the modified Meltshop EAFs~~ **July 15, 2004**.

**From the initial start up of the modified Meltshop EAFs to July 15, 2004, the Permittee shall calculate the emission rates (in pounds per hour) based on the measured parts per million concentration and maximum flow rates.**

- (iii) CEMS for Baghouse Stack

The CEMS installed to measure the emissions through the EAF baghouses stack shall be calibrated within 180 days of the installation of the new Meltshop EAF Baghouse2.

- (iv) The location of these CEMS to measure the Meltshop EAFs emissions shall be approved by OAQ prior to their installation.

- (b) The Permittee shall submit to IDEM, OAQ, within ninety (90) days after **complete** monitor installation, a complete written continuous monitoring standard operating procedure (CMSOP), in accordance with the requirements of 326 IAC 3-5-4.

- (c) The Permittee shall record the output of the systems in pounds per hour and shall perform the required record keeping and reporting, pursuant to 326 IAC 3-5-6 and 326 IAC 3-5-7.

### Recommendations and Conclusion

- (1) Based on the facts, conditions and evaluations made, the Office of Air Quality (OAQ) recommends to the Indiana Department of Environmental Management (IDEM) Commissioner that the preliminary findings in the Permit Modification 107-19155-00038 be approved.
- (2) Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.  
  
An application for the purposes of this review was received on May 20, 2004.
- (3) The applicant has provided a copy of the application in the Crawfordsville Public Library, 222 South Washington, Crawfordsville, IN 47933, Telephone: 765-362-2242.
- (4) The following officials will be notified of this proposed modification:
  - (a) County Commissioner, 100 East Main Street, Crawfordsville, IN 47933 and
  - (b) Mayor, 300 East Pike Street, Crawfordsville, IN 47933.
- (4) A copy of the findings is available on the Internet at: [www.IN.gov/idem/air/permits/Air-Permits-Online](http://www.IN.gov/idem/air/permits/Air-Permits-Online).
- (6) A copy of the findings is also available on the Internet at: [www.IN.gov/idem/air/permits/Air-Permits-Online](http://www.IN.gov/idem/air/permits/Air-Permits-Online).
- (7) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.IN.gov/idem/guides](http://www.IN.gov/idem/guides).

### IDEM Contact

Questions regarding this proposed PSD permit can be directed to Iryn Calilung at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015 or by telephone at (317) 233-5692 or toll free at 1-800-451-6027 extension 3-5692 or at [icalilun@dem.state.in.us](mailto:icalilun@dem.state.in.us).