

# Exhibit A

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

<b>NACME Steel Processing, L.L.C.,</b>	)	
	)	
<i>Petitioner,</i>	)	
	)	
v.	)	PCB <del>5-13</del> (Permit Appeal)
	)	
<b>ILLINOIS ENVIRONMENTAL</b>	)	
<b>PROTECTION AGENCY,</b>	)	
	)	
<i>Respondent.</i>	)	

**AFFIDAVIT OF JOHN DUBROCK**

John DuBrock on oath duly sworn states as follows:

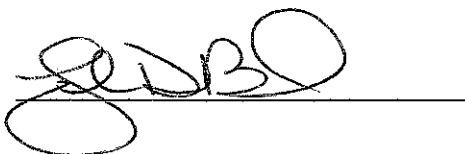
1. I am the General Manager of NACME Steel Processing, LLC and have been since 2001.
2. I oversee the operations at NACME's facility located at 429 W 127<sup>th</sup> St. Chicago, Illinois. (the "Facility")
3. The Facility operates as a steel "pickler" which essentially removes metal "scale" from the surface of metal. The Facility process now and for many years consists of 1) receipt of steel in a coiled form 2) placement of steel in a process line that a) uncoils the steel b) runs the steel thru an "acid" bath, c) rinses the steel in washwater d) "blow dries" the steel e) applies either a rust preventative oil or a lubricant to both sides of the steel and f) recoils the steel.
4. Attached as Exhibit 1 to this affidavit is a photo of the oil applicator at NACME's facility. The photo depicts steel that has been uncoiled running through the oil applicator which applies oil both to the top and bottom sides of the uncoiled steel sheet.

4. The Facility does not now nor has it ever contained a curing oven or quench station.

NACME's steel is neither cured nor quenched at the Facility. The rust preventative/lubrication oil is neither cured nor dried at the Facility. The oil as applied remains in that state as shipped to customers. NACME does not apply a "prime" coat to its steel and does not use a "wet on wet" prime coat - finish coat system.

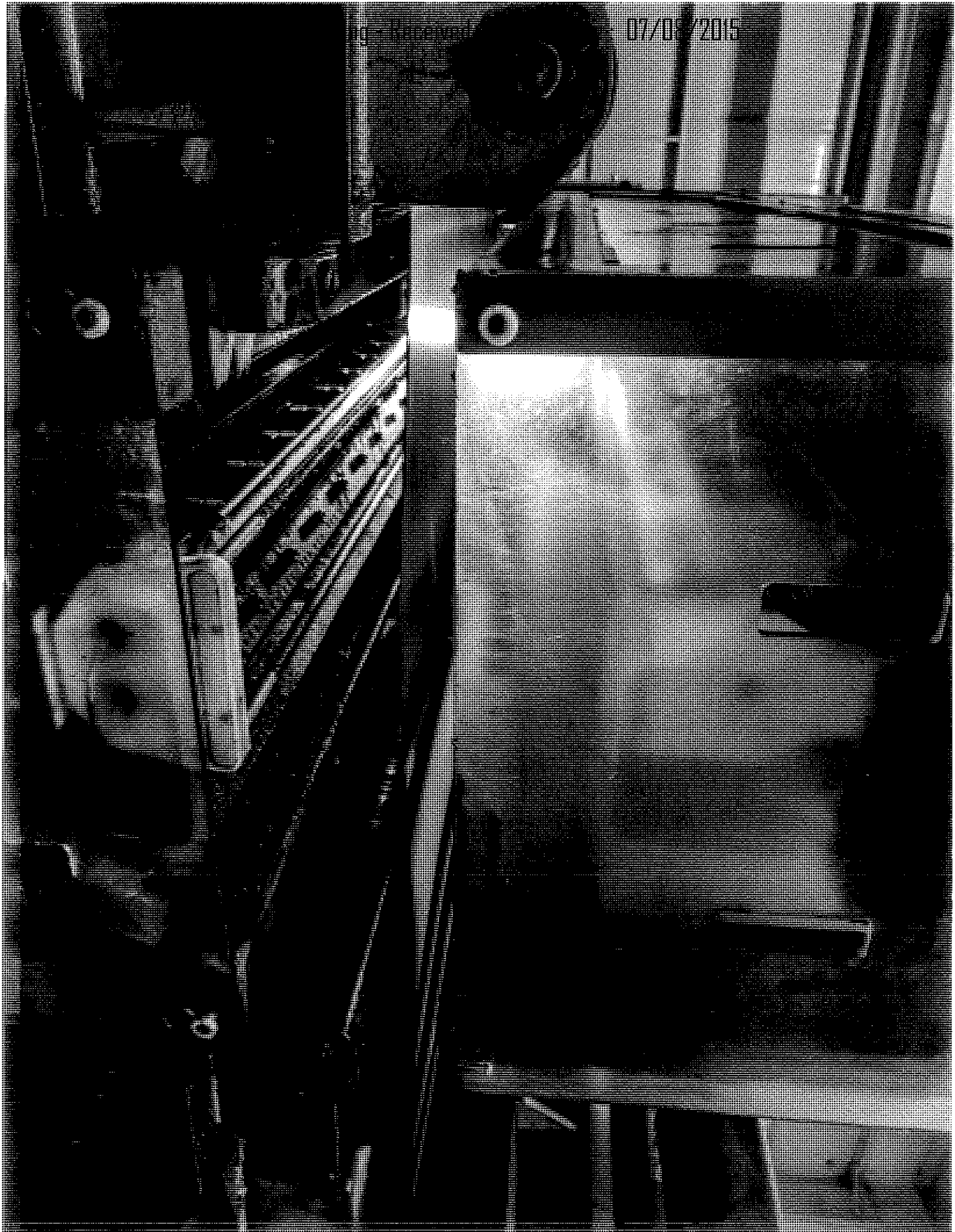
5. Either rust preventative or lubricating oil, or no oil, is applied to NACME's steel based on customer specification. The rust preventative oil is self-descriptive. Lubricating oil is often requested by customers for their own needs in further processing the steel towards its end use. Lubricating oil also serves a dual purpose in preventing rust. Neither oil is a permanent coating. In fact, the oil coating must be removed by the customer before any product coating such as paint or sealants can be applied to the steel, for example in the manufacture of automobile body or chassis panels.

Further affiant Sayeth Not



Rachel Humphrey 7/8/2015





## Exhibit B

**DRAFT**

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCE

PERMITTEE

NACME Steel Processing, LLC  
Attn: John DuBrock  
429 West 127th Street  
Chicago, Illinois 60628

Application No.: 05100052

I.D. No.: 031600FWL

Applicant's Designation:

Date Received: October 25, 2005

Subject: Steel Pickling Line Modification

Date Issued:

Expiration Date:

Location: 429 West 127th Street, Chicago, Cook County 60628

This Permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of one (1) steel coil pickling line comprised of four (4) pickling tanks and coil washer exhausted to turbo-tunnel enclosure and three (3) 14,000 gallon hydrochloric acid storage tanks all controlled by a scrubber and one (1) steel coil oil coater pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued:
  - i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 10 tons/year for any single Hazardous Air Pollutants (HAP), and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
  - ii. To establish federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP) and 25 tons/year of any combination of such HAPs so that the source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants, 40 CFR 63 Subpart CCC and the NESHAP for Surface Coating of Metal Coil, 40 CFR Part 63, Subpart SSSS.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) for this location.

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- 2a. The coil coater associated with the steel coil pickling line is subject to the New Source Performance Standards (NSPS) for Metal Coil Surface Coating, 40 CFR 60 Subparts A and TT. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 60.460(a) and (b), the provisions of 40 CFR 60 Subpart TT apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously that commences construction, modification, or reconstruction after January 5, 1981.
- b. Pursuant to 40 CFR 60.462(a)(1), on and after the date on which 40 CFR 60.8 requires a performance test to be completed, each owner or operator subject to 40 CFR 60 Subpart TT shall not cause to be discharged into the atmosphere more than 0.28 kilogram VOC per liter (kg VOC/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s).
- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.316(c), no person shall cause or allow fugitive particulate matter emissions from any roadway or parking area to exceed an opacity of 10 percent, except that the opacity shall not exceed 5 percent at quarries with a capacity to produce more than 1 million T/yr of aggregate.
- e. Pursuant to 35 Ill. Adm. Code 212.316(f), unless an emission unit has been assigned a particulate matter, PM<sub>10</sub>, or fugitive particulate matter emissions limitation elsewhere in this 35 Ill. Adm. Code 212.316 or in 35 Ill. Adm. Code 212 Subparts R or S, no person shall cause or allow

fugitive particulate matter emissions from any emission unit to exceed an opacity of 20 percent.

- f. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- g. Pursuant to 35 Ill. Adm. Code 212.324(b), except as otherwise provided in 35 Ill. Adm. Code 212.324, no person shall cause or allow the emission into the atmosphere, of PM<sub>10</sub>, from any process emission unit to exceed 68.7 mg/scm (0.03 gr/scf) during any one hour period.
- 4a. Pursuant to 35 Ill. Adm. Code 218.204(d), except as provided in 35 Ill. Adm. Code 218.205, 218.207, 218.208, 218.212, 218.215 and 218.216, no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for Coil Coating. Except as otherwise provided in 35 Ill. Adm. Code 218.204(a), (c), (g), (h), (j), (l), (n), (p), and (q), compliance with the emission limitations is required on and after March 15, 1996. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with 35 Ill. Adm. Code 218 Subpart F must be demonstrated through the applicable coating analysis test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(c) except where noted. The emission limitations are as follows:

Coil Coating	kg/l	lb/gal
	0.20	(1.7)

- b. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall only apply to photochemically reactive material.
- 5a. This permit is issued based on the steel coil pickling line at this source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants, 40 CFR 63 Subpart



- CCC. This is a result of the federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
- b. This permit is issued based on coil coater associated with the existing steel coil pickling line at this source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Metal Coil, 40 CFR Part 63, Subpart SSSS. This is a result of the federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
- 6a. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hr (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- b. Pursuant to 35 Ill. Adm. Code 212.324(d), the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) and (c) shall not apply to those emission units with no visible emissions other than fugitive particulate matter; however, if a stack test is performed, 35 Ill. Adm. Code 212.324(d) is not a defense finding of a violation of the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) and (c).
- 7a. This permit is issued based on the solvent cleaning operations at this source not being subject to the requirements of 35 Ill. Adm. Code 218.187(b). Pursuant to 35 Ill. Adm. Code 218.187(a)(1), on and after January 1, 2012: Except as provided in 35 Ill. Adm. Code 218.187(a)(2), the requirements of 35 Ill. Adm. Code 218.187 shall apply to all cleaning operations that use organic materials at sources that emit a total of 226.8 kg per calendar month (500 lbs per calendar month) or more of VOM, in the absence of air pollution control equipment, from cleaning operations at the source other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2). For purposes of 35 Ill. Adm. Code 218.187, "cleaning operation" means the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance, or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units;
- b. Pursuant to 35 Ill. Adm. Code 218.209, no owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 is

required to meet the limitations of 35 Ill. Adm. Code 218 Subpart G (35 Ill. Adm. Code 218.301 or 218.302), after the date by which the coating line is required to meet 35 Ill. Adm. Code 218.204.

8. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- 9a. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.
- b. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 35 Ill. Adm. Code 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
- c. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
  - i. The name and address of the source;
  - ii. The name and address of the owner or operator responsible for execution of the operating program;
  - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;
  - iv. Location of unloading and transporting operations with pollution control equipment;
  - v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection

equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;

- vi. Estimated frequency of application of dust suppressants by location of materials; and
  - vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- d. Pursuant to 35 Ill. Adm. Code 212.312, the operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with 35 Ill. Adm. Code 212 Subpart K and shall be submitted to the Illinois EPA for its review.
- e. Pursuant to 35 Ill. Adm. Code 212.324(f), for any process emission unit subject to 35 Ill. Adm. Code 212.324(a), the owner or operator shall maintain and repair all air pollution control equipment in a manner that assures that the emission limits and standards in 35 Ill. Adm. Code 212.324 shall be met at all times. 35 Ill. Adm. Code 212.324 shall not affect the applicability of 35 Ill. Adm. Code 201.149. Proper maintenance shall include the following minimum requirements:
- i. Visual inspections of air pollution control equipment;
  - ii. Maintenance of an adequate inventory of spare parts; and
  - iii. Expedient repairs, unless the emission unit is shutdown.
- 10a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the scrubber and turbo-tunnel enclosure such that scrubber and turbo-tunnel enclosure are kept in proper working condition and not cause a violation the Environmental Protection Act or regulations promulgated therein.
  - c. The scrubber and turbo-tunnel enclosure shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.
  - d. The scrubber shall be equipped with a monitoring device that continuously indicates and records the make-up water flow and pressure drop across the scrubber. The Permittee shall calibrate, maintain, and operate the scrubber monitoring device according to the manufacturer's specifications.

11a. This permit is issued based on negligible emissions of hydrogen chloride (HCl) from the steel coil pickling line and three hydrochloric acid storage tanks. For this purpose, HCl emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year. These limits are based on the maximum production rate, the most recent stack test data and the following operational limits:

- i. Steel Coil Throughput: 120 tons/hr, 89,000 tons/mo, 1,050,000 tons/yr;
- ii. Hydrochloric Acid Usage: 2,510 lbs/hr, 930 tons/mo, 11,000 tons/yr;
- iii. Maximum HCl concentration in pickling tanks: 16%;
- iv. Maximum pickling tanks temperature: 190°F;
- v. Scrubber make-up water flow no less than 1.88 gal/min; and
- vi. Pressure drop across the scrubber no more than 9.15" w.c.

b. The VOM usage and VOM emission from the oil coater shall not exceed the following limits:

VOM Usage		VOM Emissions	
<u>Tons/Month</u>	<u>Tons/Year</u>	<u>Tons/Month</u>	<u>Tons/Year</u>
1.27	12.70	1.27	12.70

These limits are based on the maximum material usage, the maximum VOM and HAP content of the materials, and the maximum emissions determined by a material balance. The VOM and HAP emissions shall be determined from the following equation:

$$E = \sum(V_i \times C_i)$$

Where:

E = VOM or HAP emissions (ton);

V<sub>i</sub> = individual coating usage (ton); and

C<sub>i</sub> = VOM or HAP content of the each individual coating (wt. fraction).

c. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from the source shall not exceed 0.79 tons/month and 7.9 tons/year of any single HAP and 1.31 tons/month and 13.14 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirements to obtain a CAAPP permit from the Illinois EPA, the NESHAP for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants, 40 CFR 63 Subpart

CCC, and the NESHAP for Surface Coating of Metal Coil, 40 CFR Part 63, Subpart SSS.

- d. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 12a. Pursuant to 40 CFR 60.8(a), at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).
- b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:
    - i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
    - ii. Approves the use of an equivalent method;
    - iii. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;
    - iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or
    - v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.
  - c. Pursuant to 40 CFR 60.8(c), performance tests shall be conducted under such conditions as the Illinois EPA or USEPA shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

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- d. Pursuant to 40 CFR 60.8(e), the owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
  - i. Sampling ports adequate for test methods applicable to such facility. This includes:
    - A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test 1 methods and procedures; and
    - B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
  - ii. Safe sampling platform(s).
  - iii. Safe access to sampling platform(s).
  - iv. Utilities for sampling and testing equipment.
- 13a. Pursuant to 40 CFR 60.463(b), the owner or operator of an affected facility shall conduct an initial performance test as required under 40 CFR 60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in 40 CFR 60.463.
- b. Pursuant to 40 CFR 60.463(c)(1), the owner or operator shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/ l of coating solids applied. An owner or operator shall use the following procedures for each affected facility that does not use a capture system and control device to comply with the emission limit specified under 40 CFR 60.462(a)(1). The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysis of each coating, as received, using Method 24. The Illinois EPA or USEPA may require the owner or operator who uses formulation data supplied by the manufacturer of the coatings to determine the VOC content of coatings using Method 24 or an equivalent or alternative method. The owner or operator shall determine the volume of coating and the mass of VOC-solvent added to coatings from company records on a monthly basis. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the owner or operator shall estimate the volume of coating used at each affected facility by using the average dry weight of coating and the surface area coated by each affected and existing facility or by other procedures acceptable to the Illinois EPA or USEPA.
  - i. Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied during each calendar month for each affected facility, except as provided

under 40 CFR 60.463(c)(1)(iv). The weighted average of the total mass of VOC's used per unit volume of coating solids applied each calendar month is determined by the following procedures.

- A. Calculate the mass of VOC's used ( $M_o + M_d$ ) during each calendar month for each affected facility by using Equation 1 in 40 CFR 60.463(c)(1)(i)(A).

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj} \quad \text{Equation 1}$$

( $SL_{dj} D_{dj}$  will be 0 if no VOC solvent is added to the coatings, as received)

Where:

$n$  is the number of different coatings used during the calendar month, and

$m$  is the number of different VOC solvents added to coatings used during the calendar month.

- B. Calculate the total volume of coating solids used ( $I_s$ ) in each calendar month for each affected facility by the following equation:

$$I_s = \sum_{i=1}^n V_{si} I_{ci} \quad \text{Equation 2}$$

Where:

$n$  is the number of different coatings used during the calendar month.

- C. Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied ( $G$ ) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{I_s} \quad \text{Equation 3}$$

- ii. Calculate the volume-weighted average of VOC emissions to the atmosphere ( $N$ ) during the calendar month for each affected facility by the following equation:

$$N = G \quad \text{Equation 4}$$

- iii. Where the volume-weighted average mass of VOC's discharged to the atmosphere per unit volume of coating solids applied ( $N$ ) is equal

to or less than 0.28 kg/ l, the affected facility is in compliance.

- iv. If each individual coating used by an affected facility has a VOC content, as received, that is equal to or less than 0.28 kg/ l of coating solids, the affected facility is in compliance provided no VOC's are added to the coatings during distribution or application.
- 14a. Pursuant to 40 CFR 60.466(a)(1), the reference methods in appendix A to 40 CFR Part 60, except as provided under 40 CFR 60.8(b), shall be used to determine compliance with 40 CFR 60.462 as follows: Method 24, or data provided by the formulator of the coating, shall be used for determining the VOC content of each coating as applied to the surface of the metal coil. In the event of a dispute, Method 24 shall be the reference method. When VOC content of waterborne coatings, determined by Method 24, is used to determine compliance of affected facilities, the results of the Method 24 analysis shall be adjusted as described in Section 12.6 of Method 24;
- b. Pursuant to 40 CFR 60.466(b), for Method 24, the coating sample must be at least a 1-liter sample taken at a point where the sample will be representative of the coating as applied to the surface of the metal coil.
- 15a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
  - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or



ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Conditions 16 and 17 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 16. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 17. Pursuant to 35 Ill. Adm. Code 218.211(a), the VOM content of each coating shall be determined by the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105 to establish the records required under 35 Ill. Adm. Code 218.211.
- 18. Pursuant to 40 CFR 60.464(a), where compliance with the numerical limit specified in 40 CFR 60.462(a)(1) or (2) is achieved through the use of low VOC-content coatings without the use of emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, the owner or operator shall compute and record the average VOC content of coatings applied during each calendar month for each affected facility, according to the equations provided in 40 CFR 60.463.
- 19a. Pursuant to 40 CFR 60.7(b), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- b. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
- 20. Pursuant to 40 CFR 60.465(e), each owner or operator subject to the provisions of 40 CFR 60 Subpart TT shall maintain at the source, for a period of at least 2 years, records of all data and calculations used

to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed.

21. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
- 22a. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- b. Pursuant to 35 Ill. Adm. Code 212.316(g)(1), the owner or operator of any fugitive particulate matter emission unit subject to 35 Ill. Adm. Code 212.316 shall maintain written records of the application of control measures as may be needed for compliance with the opacity limitations of 35 Ill. Adm. Code. 212.316.

- c. Pursuant to 35 Ill. Adm. Code 212.316(g)(2), the records required under 35 Ill. Adm. Code 212.316 shall include at least the following:
  - i. The name and address of the source;
  - ii. The name and address of the owner and/or operator of the source;
  - iii. A map or diagram showing the location of all emission units controlled including the location, identification, length, and width of roadways;
  - iv. For each application of water or chemical solution to roadways by truck: the name and location of the roadway controlled, application rate of each truck, frequency of each application, width of each application, identification of each truck used, total quantity of water or chemical used for each application and, for each application of chemical solution, the concentration and identity of the chemical;
  - v. For application of physical or chemical control agents: the name of the agent, application rate and frequency, and total quantity of agent and, if diluted, percent of concentration, used each day; and
  - vi. A log recording incidents when control measures were not used and a statement of explanation.
- d. Pursuant to 35 Ill. Adm. Code 212.316(g)(3), copies of all records required by 35 Ill. Adm. Code 212.316 shall be submitted to the Illinois EPA within ten (10) working days after a written request by the Illinois EPA and shall be transmitted to the Illinois EPA by a company-designated person with authority to release such records.
- e. Pursuant to 35 Ill. Adm. Code 212.316(g)(4), the records required under 35 Ill. Adm. Code 212.316 shall be kept and maintained for at least three (3) years and shall be available for inspection and copying by Illinois EPA representatives during working hours..
- f. Pursuant to 35 Ill. Adm. Code 212.324(g)(1), written records of inventory and documentation of inspections, maintenance, and repairs of all air pollution control equipment shall be kept in accordance with 35 Ill. Adm. Code 212.324(f).
- g. Pursuant to 35 Ill. Adm. Code 212.324(g)(2), the owner or operator shall document any period during which any process emission unit was in operation when the air pollution control equipment was not in operation or was malfunctioning so as to cause an emissions level in excess of the emission limitation. These records shall include documentation of causes for pollution control equipment not operating or such malfunction and shall state what and corrective actions taken and what repairs were made.

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- h. Pursuant to 35 Ill. Adm. Code 212.324(g)(3), a written record of the inventory of all spare parts not readily available from local suppliers shall be kept and updated.
  - i. Pursuant to 35 Ill. Adm. Code 212.324(g)(5), the records required under 35 Ill. Adm. Code 212.324 shall be kept and maintained for at least three (3) years and shall be available for inspection and copying by Illinois EPA representatives during working hours.
- 23a. Pursuant to 35 Ill. Adm. Code 218.187(e)(1)(B), the owner or operator of a source exempt from the limitations of 35 Ill. Adm. Code 218.187 because of the criteria in 35 Ill. Adm. Code 218.187(a)(1) shall on and after January 1, 2012, collect and record the following information each month for each cleaning operation, other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2):
- i. The name and identification of each VOM-containing cleaning solution as applied in each cleaning operation;
  - ii. The VOM content of each cleaning solution as applied in each cleaning operation;
  - iii. The weight of VOM per volume and the volume of each as-used cleaning solution; and
  - iv. The total monthly VOM emissions from cleaning operations at the source;
- b. Pursuant to 35 Ill. Adm. Code 218.187(e)(10), all records required by this 35 Ill. Adm. Code 218.187(e) shall be retained by the source for at least three years and shall be made available to the Illinois EPA upon request.
- c. Pursuant to 35 Ill. Adm. Code 218.211(c)(2), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 other than 35 Ill. Adm. Code 218.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following: On and after a date consistent with 35 Ill. Adm. Code 218.106, or on and after the initial start-up date, the owner or operator of a subject coating line shall collect and record all of the following information each day, unless otherwise specified, for each coating line and maintain the information at the source for a period of three years:
- i. The name and identification number of each coating as applied on each coating line;
  - ii. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.

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- 24a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Records addressing use of good operating practices for the scrubber and turbo-tunnel enclosure:
    - A. Records for periodic inspection of the scrubber and turbo-tunnel enclosure with date, individual performing the inspection, and nature of inspection; and
    - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
  - ii. Daily HCl concentration in pickling tanks (wt.%);
  - iii. Daily pickling tank temperature (°F);
  - iv. Daily scrubber make-up water flow (gal/min);
  - v. Daily pressure drop across the scrubber (in of w.c.);
  - vi. Steel process rate (tons/mo, tons/yr);
  - vii. Hydrochloric acid usage (gal/mo, gal/yr);
  - viii. Coating and cleanup solvent usage (tons/month and tons/year);
  - ix. The VOM and HAP content of each coating and cleanup solvent (% by weight);
  - x. Monthly and annual emissions of PM, VOM and HAP from the source with supporting calculations (tons/month, tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA or USEPA request for records during the course of a source inspection.
25. Pursuant to 40 CFR 60.465(c), following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Illinois EPA or USEPA every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under 40 CFR 60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Illinois EPA or USEPA semiannually.

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- 26a. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
- b. Pursuant to 35 Ill. Adm. Code 212.316(g)(1), the owner or operator of any fugitive particulate matter emission unit subject to 35 Ill. Adm. Code 212.316 shall submit to the Illinois EPA an annual report containing a summary of the application of control measures as may be needed for compliance with the opacity limitations of 35 Ill. Adm. Code. 212.316.
- c. Pursuant to 35 Ill. Adm. Code 212.316(g)(5), a quarterly report shall be submitted to the Illinois EPA stating the following: the dates any necessary control measures were not implemented, a listing of those control measures, the reasons that the control measures were not implemented, and any corrective actions taken. This information includes, but is not limited to, those dates when controls were not applied based on a belief that application of such control measures would have been unreasonable given prevailing atmospheric conditions, which shall constitute a defense to the requirements of this Section. This report shall be submitted to the Illinois EPA 30 calendar days from the end of a quarter. Quarters end March 31, June 30, September 30, and December 31.
- d. Pursuant to 35 Ill. Adm. Code 212.324(g)(4), copies of all records required by 35 Ill. Adm. Code 212.324 shall be submitted to the Illinois EPA within ten (10) working days after a written request by the Illinois EPA.
- 27a. Pursuant to 35 Ill. Adm. Code 218.187(e)(1)(C), the owner or operator of a source exempt from the limitations of 35 Ill. Adm. Code 218.187 because of the criteria in 35 Ill. Adm. Code 218.187(a)(1) shall comply with the following: Notify the Illinois EPA of any record that shows that the combined emissions of VOM from cleaning operations at the source, other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2), ever equal or exceed 226.8 kg/month (500 lbs/month), in the absence of air pollution control equipment, within 30 days after the event occurs.
- b. Pursuant to 35 Ill. Adm. Code 218.211(c)(3), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 other than 35 Ill. Adm. Code 218.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following:
- i. By a date consistent with 35 Ill. Adm. Code 218.106, or upon initial start-up of a new coating line, or upon changing the method of compliance from an existing subject coating line from

35 Ill. Adm. Code 218.205, 35 Ill. Adm. Code 218.207, 35 Ill. Adm. Code 218.215, or 35 Ill. Adm. Code 218.216 to 35 Ill. Adm. Code 218.204; the owner or operator of a subject coating line shall certify to the Illinois EPA that the coating line will be in compliance with 35 Ill. Adm. Code 218.204 on and after a date consistent with 35 Ill. Adm. Code 218.106, or on and after the initial start-up date. The certification shall include:

- A. The name and identification number of each coating as applied on each coating line;
  - B. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line;
- ii. On and after a date consistent with 35 Ill. Adm. Code 218.106, the owner or operator of a subject coating line shall notify the Illinois EPA in the following instances:
- A. Any record showing violation of 35 Ill. Adm. Code 218.204 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.
  - B. At least 30 calendar days before changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d)(1) or (e)(1), as applicable. Upon changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d) or (e), as applicable.
- 28a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or deviation and efforts to reduce emissions and future occurrences.
- b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Illinois EPA  
Division of Air Pollution Control  
Compliance and Enforcement Section (#40)  
P.O. Box 19276  
Springfield, IL 62794-9276

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and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Illinois EPA  
Division of Air Pollution Control - Regional Office  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this permit, please contact Valeriy Brodsky at 217/785-1705.

Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

Date Signed: \_\_\_\_\_

ECB:VJB:

cc: Illinois EPA, FOS Region 1  
Lotus Notes



Attachment A - Emissions Summary

This attachment provides a summary of the maximum emissions from the steel coil pickling plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emission is below the level (e.g., 10 tons/year for any single HAP and 25 tons/year for any combination of such HAP), at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is used and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)			
	<u>PM</u>	<u>VOM</u>	Single <u>HAP</u>	Combined <u>HAPs</u>
Steel Coil Pickling Line and Three Hydrochloric Acid Storage Tanks	0.44	.	0.44	<u>0.44</u>
Coil Coating	--	<u>12.70</u>	<u>12.70</u>	<u>12.70</u>
Totals	<u>0.44</u>	<u>12.70</u>	<u>7.90</u>	<u>13.14</u>

VJB:

## Exhibit C

Walsh III, Edward V.

---

**From:** Brodsky, Valeriy [Valeriy.Brodsky@Illinois.gov]  
**Sent:** Friday, June 15, 2012 10:25 AM  
**To:** BWenzel@mp-mail.com  
**Cc:** Walsh III, Edward V.; dsusler@nmlp.com; O'Meara, Robert S.; jdubrock@nmlp.com; Bernoteit, Bob  
**Subject:** RE: NACME (I.D. No. 031600FWL) Comments to Draft FESOP

Britt,

Your main argument against NSPS Subpart TT applicability is the absence of curing and quenching stations in the NACME finish coat protective oil application operations. In 1988 the US EPA Region 5 made Applicability Determination on the performance testing for coil coating line which does not have a curing oven without questioning the NSPS Subpart TT applicability (see attached). The Permit Section position is that the components listing of the affected facility being subject to emission standard does not relieve the whole facility from applicability on the ground of the absence of some components.

Sincerely,

Valeriy Brodsky  
Environmental Protection Engineer  
Illinois EPA, Bureau of Air

Telephone: 217/785-1738  
Fax: 217/524-5023  
e-mail: [Valeriy.Brodsky@illinois.gov](mailto:Valeriy.Brodsky@illinois.gov)

**U.S. Environmental Protection Agency Applicability Determination Index  
Control Number: NR41**

**Category:** NSPS

**EPA Office:** Region 5

**Date:** 09/19/1988

**Title:** NSPS Applicability to Coil Coating Operations

**Recipient:** Sweitzer, Terry A.

**Author:** Kertcher, Larry F.

**Subparts:** Part 60, TT, Metal Coil Surface Coating

**References:**

60.460,

60.463

(i)

**Abstract:**

Does Subpart TT regulate VOCs emitted or applied?

The intent of Subpart TT is to regulate the VOCs applied and not the VOCs emitted from application. Also, testing using a temporary enclosure on only the coating applicator discounted the VOCs resulting from the subsequent evaporation of organic solvents in the coating, and does not satisfy the performance test requirements of 40 CFR 60.463(i)(B).

**Letter:**

Control Number: NR41

September 19 1988

Region 5

Terry Sweitzer, P.E.

Manager of Permit Section

Division of Air Pollution Control

Illinois Environmental Protection Agency

P.O. Box 19276

Springfield, Illinois 62794-9276

Dear Mr. Sweitzer:

This letter is in response to your request for review of the applicability and compliance procedures of 40 C.F.R. 60 Subpart TT (60.460-60.466) - Standards of Performance for Metal Coil Coaters as applied to coil coating operations at Olin Corporation.

Olin has applied for a permit (Permit No. 72-08-003) to install and operate a coil coater on the #8 strip anneal that will be controlled with an activated carbon filter. The coating station does not have a flash off area or a curing oven. Based on a performance test done using a temporary enclosure on the coating applicator only, the VOC emissions were found to be 0.88 pounds per hour. Olin proposes to control 95% of that amount. However, the total amount of VOCs applied is 5.3 pounds per hour and according to Olin, it can be assumed that all the VOCs will evaporate.

It is U.S. Environmental Protection Agency's interpretation that the intent of 40 C.F.R. 60 Subpart TT is to regulate the VOCs applied and not the VOCs emitted from the application as Olin claims. Also, during the performance test, Olin by having temporary enclosure on the coating applicator only, has discounted the VOCs resulting from the subsequent evaporation or organic solvents in the coating. Based on these facts, U.S. EPA believes that the performance test does not satisfy the requirements of 40 C.F.R. 60 Section 60.463(i)(B).

Electronic Filing - Received, Clerk's Office : 07/08/2015

If you have any questions or comments, please contact Spiros Bourgikos of my staff at (312) 886-6862.

Sincerely yours,

(signed)

Larry F. Kertcher, Chief

Air Compliance Branch (5AC-26)

## Exhibit D

Walsh III, Edward V.


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**From:** BWenzel@mp-mail.com  
**Sent:** Wednesday, June 27, 2012 10:12 AM  
**To:** Brodsky, Valeriy  
**Cc:** dsusler@nmip.com; Walsh III, Edward V.; jdubrock@nmip.com; O'Meara, Robert S.  
**Subject:** RE: NACME (I.D. No. 031600FWL) Comments to Draft FESOP  
**Attachments:** NACME Draft FESOP Response Letter 3\_0626 FINAL.pdf

Mr. Brodsky:

Attached please find the response to your June 15, 2012 email regarding the Draft FESOP issued to the NACME Steel Processing, LLC facility (I.D. No. 031600FWL). Please review and contact me with any questions or additional comments. The original letter has been sent in the mail.

*(See attached file: NACME Draft FESOP Response Letter 3\_0626 FINAL.pdf)*

**mostardi  platt**

Britt E. Wenzel

bwenzel@mp-mail.com

t: 630-993-2123 m: 630-688-1799 f: 630-993-9017

888 Industrial Drive Elmhurst IL 60126

[www.mostardi-platt.com](http://www.mostardi-platt.com) **CONFIDENTIALITY NOTICE:** This email and any attachments are for the exclusive and confidential use of the intended recipient. If you are not the intended recipient, please do not read, distribute or take action in reliance upon this message. If you have received this email in error, please notify us immediately by return email and promptly delete this message and its attachment from your computer.



June 26, 2012

Mr. Edwin Bakowski  
Manager, Permit Section  
Illinois Environmental Protection Agency  
Division of Air Pollution Control  
1021 North Grand Avenue East  
Springfield, Illinois 62702

Via E-Mail and Regular Mail

**RE: April 2012 Draft FESOP Comments  
NACME Steel Processing, LLC  
I.D. No. 031600FWL  
Application No.05100052**

Mr. Bakowski:

The following additional comments are being provided regarding the preliminary Draft Federally Enforceable State Operating Permit (FESOP) issued to the NACME Steel Processing, LLC (NACME) facility located at 429 West 127<sup>th</sup> Street in Chicago, Illinois (the facility) by IEPA letter dated April 26, 2012.

On June 15, 2012, I received email correspondence from Valeriy Brodsky, Permit Engineer for the Illinois Environmental Protection Agency (IEPA) responding to my June 14, 2012 draft FESOP comments letter. In the June 15, 2012 correspondence, Mr. Brodsky indicated that in 1988, the United States Environmental Protection Agency (US EPA) Region 5 made an Applicability Determination (AD) regarding the intent of 40 CFR 60, Subpart TT to regulate as applied volatile organic compounds (VOCs) and a determination of compliance with Subpart TT performance testing requirement on a coil coating operating at an Olin Corporation (Olin) facility.

Mr. Brodsky stated in his June 15, 2012 correspondence that subpart TT applies to NACME based on the 1988 US EPA AD. Specifically, Mr. Brodsky stated:

"Your main argument against NSPS Subpart TT applicability is the absence of curing and quenching stations in the NACME finish coat protective oil application operations. In 1988 the US EPA Region 5 made Applicability Determination on the performance testing for coil coating line which does not have a curing oven without questioning the NSPS Subpart TT applicability



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(see attached). The Permit Section position is that the components listing of the affected facility being subject to emission standard does not relieve the whole facility from applicability on the ground of the absence of some components.”

The issue with this position is that the purpose of the 1988 AD is being ignored and the fact is that it simply does not apply to NACME and the current situation.

The purpose of this correspondence is to provide our response to the June 15, 2012 IEPA Permit Section’s comments and re-iterate the comments from the June 14, 2012 draft FESOP response letter including our comments for draft FESOP Condition Nos. 4b and 11c.

### Response

As stated on the US EPA’s Applicability Determination Index (ADI) web site, the general provisions of 40 CFR Parts 60 and 61 provide that a source owner or operator may request a determination from the US EPA of whether certain intended actions constitute the commencement of construction, reconstruction, or modification (“applicability determinations”); or seek permission to use monitoring or record keeping which is different from the promulgated NSPS and NESHAP standards (“alternative monitoring”).

Review of the 1988 US EPA AD indicates that this AD appears to be taken out of context with regard to NACME operations. This AD addresses what VOCs are regulated under this Standard – VOCs as applied or VOCs as emitted in the context of determining whether the alternative performance testing completed by Olin Corporation is acceptable to the US EPA under the provisions of the NSPS (as outlined in the AD Abstract). The findings of the 1988 AD was that the alternative performance testing (e.g., monitoring) conducted by Olin did not comply with the NSPS.

The applicability of the NSPS to the Olin coating operation is not a part of this determination nor is it addressed in the AD. The AD discussion of the Olin coating station not having a flash off area or curing oven is used only in the context of determining where the emissions are occurring on the process line for the purposes of accurately measuring emissions during the completion of performance testing as required by the NSPS. The AD identifies only the coating station of the coating operation, does not identify other process line components that are in place after the coating station, and indicates that the performance testing was completed in a temporary enclosure on the coating applicator.

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June 26, 2012  
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The AD further indicates that the enclosure used at the coating applicator during the stack test did not capture nor accurately measure all VOC emissions from the Olin coating operation since VOC emissions may have occurred after the temporary enclosure and, therefore, the performance testing completed on the process line did not meet the performance testing requirements of the NSPS.

Lastly, the AD indicates that all of the coating used on the Olin process line will evaporate as VOC emissions for the process being evaluated. In contrast, NACME roll oil is designed to remain on the metal coils for protection prior to final use, not to evaporate, which differs from the Olin coating operation.

As the AD abstract indicates, the purpose of the 1988 AD was not to determine whether the Olin coating operation is subject to the NSPS Subpart TT requirements but rather to determine at what point the VOCs are regulated and whether the performance testing completed meets the requirements of the NSPS. The US EPA omission of the NSPS applicability issue in this AD cannot, therefore, provide a definitive answer to the applicability of this NSPS to NACME operations since this AD simply did not address the coating line applicability issue.

As stated in our initial response regarding the applicability of the NSPS outlined in 40 CFR 60, Subpart TT, we continue to assert that the protective oil application process used at NACME's facility does not fall within the definition of coating operations as used in the Standard. Therefore, NACME is not subject to the NSPS; the Technical Support Documents (TSDs) provided in the June 14, 2012 draft FESOP response letter, which support this stance, more accurately address operations similar to the NACME protective coating application process. With regard to specific permit conditions within the draft FESOP, the following is provided:

Permit Condition No. 2a

Condition 2a currently states that the Coil Coater at the facility is subject to NSPS for Metal Coil Surface Coating, 40 CFR 60, Subpart TT.

As previously stated, the Metal Coil Surface Coating NSPS does not apply to operations at the NACME facility because the oil application process does not meet the specific definition of prime or finish coat operations in the Standard.

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As stated in 40 CFR 60.460(a), the Metal Coil Surface Coating NSPS applies only to the following coating operations:

- Each prime coat operation,
- Each finish coat operation, and
- Each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously.

As listed in 40 CFR 60.461, the following specific definitions apply to coil coating operations subject to the NSPS:

- *Prime coat operation* means the coating application station, curing oven, and quench station used to **apply and dry or cure** the initial coating(s) on the surface of the metal coil
- *Finish coat operation* means the coating application station, curing oven, and quench station used to **apply and dry or cure** the final coating(s) on the surface of the metal coil. Where only a single coating is applied to the metal coil, that coating is considered a finish coat

As indicated, NACME applies a protective rust preventative oil to metal coils which involves the use of an oil application station at the end of the steel pickling line. The protective oil is not dried or cured and does not contain any solids. Therefore, the protective oil is not subject to the VOM content limits for this Subpart. The protective oil remains on the coil after application and no quenching of the oiled metal coils is required (e.g., there is no quench station on this process line).

Furthermore, review of other current permits issued by the Indiana Department of Environmental Management (IDEM) for other protective or lubricating oil application processes and Technical Support Documents (TSDs) and guidance documents issued to states from the US EPA regarding what constitutes metal coil coating operations provide further evidence that the application of a rust preventative oil is not subject to this NSPS.

The following TDSs and guidance documents were previously provided in the June 14, 2012 response letter for air emission source permits issued by IDEM (which are available at the US EPA's Region 5 Division of Air and Radiation Indiana Permit Database) to facilities that perform rust preventative protective oil application processes onto metal coils:

- Ispat Inland, Inc. East Chicago, Indiana (Ispat) TSD for a Part 70 Source Construction Permit (Permit No. CP-089-10472-00316) – Ispat applies rust preventative oil to metal coils. The Federal Rule Applicability Section of the TSD (page 4 of 6) states that “the application of rust preventative oils to the steel coils is not subject to the New Source Performance Standard 326 IAC 12 (40 CFR 60, Subpart TT) because this rule only applies to coating operations which use a curing oven and quench station as part of the process”.
- Syndicate Sales, Inc., Kokomo, Indiana (Syndicate) TSD for a FESOP Source (Permit No. F067-7699-00026) – Syndicate applies a petroleum lubricant to metal coils. The Federal Rule Applicability Section of the TSD (page 5 of 12) states that “where only a single coating is applied to the metal coil, that coating is considered a finish coat. The definition of Finish Coat Operation is the coating application station, curing oven, and quench station used to apply and dry or cure the final coating on the surface of the metal coil. The metal stamping process only involves coating metal coil with petroleum lubricating oil to facilitate the shaping and cutting of the coil into metal stems in the stamping process. There are no curing ovens associated with the process. The metal stamping line does not fall under the definition of a finish coating operation, therefore, the requirements of 40 CFT 60.460, Subpart TT do not apply.”
- Kastle Metal Processing, Jeffersonville, Indiana (Kastle) TSD for a Construction Permit (Permit No. 019-22372-00119) – Kastle applies a rust preventative surface coating to steel blanks. The Federal Rule Applicability Section of the TSD (page 4 of 5) states that “this source is not subject to the New Source Performance Standard, 326 IAC 12, 40 CFR 60.460, Subpart TT – Standards and Performance for Metal Coil Surface Coating Operations, which applies to prime coat, finish coat, and prime and finish coat combined operations because it is not a prime or finish coat operation”.
- The US EPA Guidance Document (Document No. EPA-453/P-00-001) *National Emissions Standards for Hazard Air Pollutants: Metal Coil Surface Coating Industry Background Information for Proposed Standards*, while it does not specifically address the NSPS requirements, outlines the “Metal Coil Coating Industry Profile and Process Description” (Section 3). Within this section of the US EPA Guidance Document, the USEPA describes the metal coil coating process as one that includes “a wet station and

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one or more coating operations consisting of a coating application station, a curing oven, and a quench area”.

The Ispat TSD clearly states that the application of a rust preventative oil to a steel coil is not subject to the NSPS because the rule only applies to coating operations which use a curing oven and quench station as part of the process.

As indicated in Mr. Brodsky's response previous response to the original May 15, 2011 Draft FESOP response letter submitted to the IEPA, he indicated the roll oil falls under the definition of coating. As stated in the Syndicate TSD, an oil can be considered a coating and not be subject to the NSPS outlined in 40 CFR 60, Subpart TT.

The Kastle TDS specifically states that the application of a rust preventative coating is not a prime or finish coat operation.

The USEPA's own *National Emissions Standards for Hazard Air Pollutants: Metal Coil Surface Coating Industry Background Information for Proposed Standards* supports NACME's position as it clearly states that a metal coil surface coating operation consists of a wet station and one or more coating operations consisting of a coating application station, a curing oven, and a quench area. If US EPA believed that a rust preventative surface coating without a curing oven or a quench station – such as NACME's – fell within the definition of a metal surface coating operation and Subpart TT, then it would not have limited its guidance (or its definitions) to only those operations that include curing ovens and quenching stations. By doing so, the US EPA has clearly expressed its intention that Subpart TT not apply to a metal coating operation unless there is a curing oven or quench station involved. This conclusion is consistent not only with the definitions promulgated by US EPA itself in 40 CFR. 60.461, but also with the application of those definitions by IDEM to coating lines similar to NACME's here as detailed above.

Taken together, the TSDs, the US EPA guidance document, and the definitions in Subpart TT provide convincing evidence that the application of a rust preventative oil onto the metal coils does not meet the definition of finish or prime coat operations and, as a result, are not subject to the NSPS requirements of 40 CFR 60, Subpart TT.

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Permit Condition No. 2b

Condition 2b states that, pursuant to 40 CFR 60.462(a)(1), each owner or operator subject to 40 CFR 60, Subpart TT shall not cause to be discharged into the atmosphere, more than 0.28 kilograms per liter of coating solids applied for each calendar month.

Based upon the information provided in the initial May 2012 draft FESOP response and the additional information provided in this correspondence, NACME requests revision of Condition 2a to state that the NSPS of 40 CFR 60, Subpart A and TT does not apply to metal coil protective oil application operations at the facility because the protective rust preventative oil application operation does not meet the definition of prime coat or finish coat operations as outlined in 40 CFR 60.461. As indicated above, 40 CFR 60, Subpart TT does not apply since the protective rust preventative oil application process do not meet the definition of either the prime coat or finish coating operations listed in 40 CFR 60.461 and the protective oil coating remains on the metal coils after application (e.g., is not cured or dried) and does not contain any solids.

Permit Condition No. 4b

Condition No. 4b indicates that no more than 8 pounds VOM per hour of organic material shall be discharged into the atmosphere from any emission unit.

Per our previous comment regarding this permit condition, NACME requests that additional language be inserted into Permit Condition 4b that states the coil oil application operation is not subject to the limitations of 35 IAC 218.301 pursuant to 35 IAC 218.209 which states:

- No owner or operator of a coating line subject to the limitations of Section 218.204 of this Part is required to meet the limitations of Subpart G (Section 218.301 or 218.302) of this Part, after the date by which the coating line is required to meet Section 218.204 of this Part

Permit Condition No. 11c

Condition 11c references monthly and annual limits on HAP emissions for both individual and combined HAP emissions. Additionally, this Condition also references the NESHAP for Surface Coating of Metal Coil (40 CFR 63, Subpart SSSS).

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Per our previous comments, while the language in the Condition referencing the non-applicability of the NESHAP for Steel Pickling Operations in 40 CFR 63, CCC is accurate, there is no regulation that limits monthly or annual, individual or combined HAP emissions other than maintaining these HAP emission levels below the major source levels of 10 tons per year of individual HAPs and 25 tons per year combined HAPs.

Therefore, in addition to the removal of the reference to the Surface Coating of Metal Coils that the IEPA has already agreed to, NACME requests that the monthly and annual emission limitations outlined in the current draft FESOP be removed. Note, however, NACME understands the importance of minimizing the emissions of HAPs and would accept to have this Condition revised to limit individual HAP emissions to 9.0 tons per year and combined HAP emissions to 22.5 tons per year (below major source threshold levels) with no monthly limitations.

Permit Condition No. 13a and b/Permit Condition No. 14a and b

As indicated in the comments regarding Permit Condition Nos. 2a and b, the protective oil application operation at the facility does not meet the definition of prime coat or finish coat operations and the Metal Coil Surface Coating NSPS does not apply. NACME request that Permit Condition Nos. 13a and b and 14a and b be removed from the FESOP.

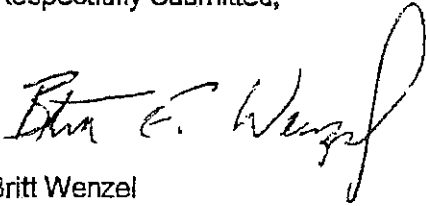
Permit Condition No. 18/Permit Condition No. 19a and b/Permit Condition No. 20/Permit Condition No 25

As indicated in the comments regarding Permit Condition Nos. 2a and b, 13a and b, and 14a and b, the protective oil application operation at the facility does not meet the definition of prime coat or finish coat operations and the Metal Coil Surface Coating NSPS does not apply. NACME request that Permit Condition Nos. 18, 19a and b, 20 and 25 be removed from the FESOP.

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If you have any questions or require further information, please contact our consultant, Britt Wenzel of Mostardi Platt at 630-993-2123.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Britt E. Wenzel". The signature is fluid and cursive, with a large loop at the end of the last name.

Britt Wenzel  
Director, Environmental, Health & Safety Compliance Services

cc: J. DuBrock, National Processing Company  
David Susler, National Material L.P.  
Ms. Nancy Tikalsky, IAG



# Exhibit E

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY



1021 NORTH GRAND AVENUE EAST, P.O. BOX 19506, SPRINGFIELD, ILLINOIS 62794-9506 - (217) 782-2113

PAT QUINN, GOVERNOR

JOHN J. KIM, INTERIM DIRECTOR

217/785-1705

CONSTRUCTION PERMIT -- NSPS SOURCE

PERMITTEE

NACME Steel Processing, LLC  
Attn: John DuBrock  
429 West 127th Street  
Chicago, Illinois 60628

Application No.: 12020035

I.D. No.: 031600FWL

Applicant's Designation:

Date Received: February 23, 2012

Subject: Steel Pickling 1

Date Issued: April 26, 2012

Location: 429 West 127th Street, Chicago, Cook County 60628

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission unit(s) and/or air pollution control equipment consisting of modification of the existing steel coil pickling line comprised of four (4) pickling tanks and coil washer exhausted to turbo-tunnel enclosure and three (3) 14,000 gallon hydrochloric acid storage tanks all controlled by a scrubber and one (1) coil oil coater to allow increase of steel processing rate as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This permit is issued based on the emission of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from the above-listed equipment being less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result, this permit is issued based on the emissions of all HAPs from the above-listed equipment not triggering the requirements of Section 112(g) of the Clean Air Act.
- b. This permit is issued based on the modification of existing steel coil pickling line not constituting a new major source or major modification pursuant to Title I of the Clean Air Act, specifically the 40 CFR 52.21 Prevention of Significant Deterioration of Air Quality. The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the emissions of Particulate Matter (PM) and Particulate Matter less than 10 microns (PM<sub>10</sub>) from above-listed equipment below the levels that would trigger the applicability of these rules.
- c. Operation of the equipment listed above is allowed under this construction permit until final action is taken on the Federally Enforceable State Operating Permit (FESOP) application for this source.

- 2a. The coil coater associated with the existing steel coil pickling line is subject to the New Source Performance Standards (NSPS) for Metal Coil Surface Coating, 40 CFR 60 Subparts A and TT. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 60.460(a) and (b), the provisions of 40 CFR 60 Subpart TT apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously that commences construction, modification, or reconstruction after January 5, 1981.
- b. Pursuant to 40 CFR 60.462(a)(1), on and after the date on which 40 CFR 60.8 requires a performance test to be completed, each owner or operator subject to 40 CFR 60 Subpart TT shall not cause to be discharged into the atmosphere more than 0.28 kilogram VOC per liter (kg VOC/ l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s).
- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.316(f), unless an emission unit has been assigned a particulate matter, PM<sub>10</sub>, or fugitive particulate matter emissions limitation elsewhere in this 35 Ill. Adm. Code 212.316 or in 35 Ill. Adm. Code 212 Subparts R or S, no person shall cause or allow fugitive particulate matter emissions from any emission unit to exceed an opacity of 20 percent.
- e. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from

any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).

- f. Pursuant to 35 Ill. Adm. Code 212.324(b), except as otherwise provided in 35 Ill. Adm. Code 212.324, no person shall cause or allow the emission into the atmosphere, of PM<sub>10</sub>, from any process emission unit to exceed 68.7 mg/scm (0.03 gr/scf) during any one hour period.
- 4a. Pursuant to 35 Ill. Adm. Code 218.204(d), except as provided in 35 Ill. Adm. Code 218.205, 218.207, 218.208, 218.212, 218.215 and 218.216, no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for Coil Coating. Except as otherwise provided in 35 Ill. Adm. Code 218.204(a), (c), (g), (h), (j), (l), (n), (p), and (q), compliance with the emission limitations is required on and after March 15, 1996. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with 35 Ill. Adm. Code 218 Subpart F must be demonstrated through the applicable coating analysis test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(c) except where noted. The emission limitations are as follows:

Coil Coating	kg/l	lb/gal
	0.20	(1.7)

- b. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall only apply to photochemically reactive material.
- 5a. This permit is issued based on the steel coil pickling line at this source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants, 40 CFR 63 Subpart CCC. This is a result of the federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.

- b. This permit is issued based on coil coater associated with the existing steel coil pickling line at this source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Metal Coil, 40 CFR Part 63, Subpart SSSS. This is a result of the federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
  
- 6a. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hr (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
  
- b. Pursuant to 35 Ill. Adm. Code 212.324(d), the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) and (c) shall not apply to those emission units with no visible emissions other than fugitive particulate matter; however, if a stack test is performed, 35 Ill. Adm. Code 212.324(d) is not a defense finding of a violation of the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) and (c).
  
- 7a. This permit is issued based on the solvent cleaning operations at this source not being subject to the requirements of 35 Ill. Adm. Code 218.187(b). Pursuant to 35 Ill. Adm. Code 218.187(a)(1), on and after January 1, 2012: Except as provided in 35 Ill. Adm. Code 218.187(a)(2), the requirements of 35 Ill. Adm. Code 218.187 shall apply to all cleaning operations that use organic materials at sources that emit a total of 226.8 kg per calendar month (500 lbs per calendar month) or more of VOM, in the absence of air pollution control equipment, from cleaning operations at the source other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2). For purposes of 35 Ill. Adm. Code 218.187, "cleaning operation" means the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance, or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units;
  
- b. Pursuant to 35 Ill. Adm. Code 218.209, no owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 is required to meet the limitations of 35 Ill. Adm. Code 218 Subpart G (35 Ill. Adm. Code 218.301 or 218.302), after the date by which the coating line is required to meet 35 Ill. Adm. Code 218.204.

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8. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
9. Pursuant to 35 Ill. Adm. Code 212.324(f), for any process emission unit subject to 35 Ill. Adm. Code 212.324(a), the owner or operator shall maintain and repair all air pollution control equipment in a manner that assures that the emission limits and standards in 35 Ill. Adm. Code 212.324 shall be met at all times. 35 Ill. Adm. Code 212.324 shall not affect the applicability of 35 Ill. Adm. Code 201.149. Proper maintenance shall include the following minimum requirements:
  - i. Visual inspections of air pollution control equipment;
  - ii. Maintenance of an adequate inventory of spare parts; and
  - iii. Expeditious repairs, unless the emission unit is shutdown.
- 10a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the scrubber and turbo-tunnel enclosure such that scrubber and turbo-tunnel enclosure are kept in proper working condition and not cause a violation the Environmental Protection Act or regulations promulgated therein.
- c. The scrubber and turbo-tunnel enclosure shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.
- d. The scrubber shall be equipped with a monitoring device that continuously indicates and records the make-up water flow and pressure drop across the scrubber. The Permittee shall calibrate, maintain, and operate the scrubber monitoring device according to the manufacturer's specifications.
- 11a. This permit is issued based on negligible emissions of hydrogen chloride (HCl) from the steel coil pickling line and three hydrochloric acid storage tanks. For this purpose, HCl emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year. These limits

are based on the maximum production rate, the most recent stack test data and the following operational limits:

- i. Steel Coil Throughput: 120 tons/hr, 89,000 tons/mo, 1,050,000 tons/yr;
  - ii. Hydrochloric Acid Usage: 2,510 lbs/hr, 930 tons/mo, 11,000 tons/yr;
  - iii. Maximum HCl concentration in pickling tanks: 16%;
  - iv. Maximum pickling tanks temperature: 190°F;
  - v. Scrubber make-up water flow no less than 1.88 gal/min; and
  - vi. Pressure drop across the scrubber no more than 9.15" w.c.
- b. The VOM usage and VOM emission from the oil coater shall not exceed the following limits:

VOM Usage		VOM Emissions	
<u>Tons/Month</u>	<u>Tons/Year</u>	<u>Tons/Month</u>	<u>Tons/Year</u>
1.27	12.70	1.27	12.70

These limits are based on the maximum material usage, the maximum VOM and HAP content of the materials, and the maximum emissions determined by a material balance. The VOM and HAP emissions shall be determined from the following equation:

$$E = \sum(V_i \times C_i)$$

Where:

E = VOM or HAP emissions (ton);

V<sub>i</sub> = individual coating usage (ton); and

C<sub>i</sub> = VOM or HAP content of the each individual coating (wt. fraction).

- c. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from pickling line shall not exceed 0.79 tons/month and 7.9 tons/year of any single HAP and 1.31 tons/month and 13.14 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirements of Section 112(g) of the Clean Air Act, the NESHAP for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants, 40 CFR 63 Subpart CCC, and the NESHAP for Surface Coating of Metal Coil, 40 CFR Part 63, Subpart SSSS.
- d. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

- 12a. Pursuant to 40 CFR 60.8(a), within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).
- b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:
- i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
  - ii. Approves the use of an equivalent method;
  - iii. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;
  - iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or
  - v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.
- c. Pursuant to 40 CFR 60.8(c), performance tests shall be conducted under such conditions as the Illinois EPA or USEPA shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- d. Pursuant to 40 CFR 60.8(e), the owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
- i. Sampling ports adequate for test methods applicable to such facility. This includes:



- A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and
  - B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
- ii. Safe sampling platform(s).
  - iii. Safe access to sampling platform(s).
  - iv. Utilities for sampling and testing equipment.
- 13a. Pursuant to 40 CFR 60.463(b), the owner or operator of an affected facility shall conduct an initial performance test as required under 40 CFR 60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in 40 CFR 60.463.
- b. Pursuant to 40 CFR 60.463(c)(1), the owner or operator shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/l of coating solids applied. An owner or operator shall use the following procedures for each affected facility that does not use a capture system and control device to comply with the emission limit specified under 40 CFR 60.462(a)(1). The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysis of each coating, as received, using Method 24. The Illinois EPA or USEPA may require the owner or operator who uses formulation data supplied by the manufacturer of the coatings to determine the VOC content of coatings using Method 24 or an equivalent or alternative method. The owner or operator shall determine the volume of coating and the mass of VOC-solvent added to coatings from company records on a monthly basis. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the owner or operator shall estimate the volume of coating used at each affected facility by using the average dry weight of coating and the surface area coated by each affected and existing facility or by other procedures acceptable to the Illinois EPA or USEPA.
- i. Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied during each calendar month for each affected facility, except as provided under 40 CFR 60.463(c)(1)(iv). The weighted average of the total mass of VOC's used per unit volume of coating solids applied each calendar month is determined by the following procedures.

- A. Calculate the mass of VOC's used ( $M_o + M_d$ ) during each calendar month for each affected facility by using Equation 1 in 40 CFR 60.463(c)(1)(i)(A).

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj} \quad \text{Equation 1}$$

( $L_{dj} D_{dj}$  will be 0 if no VOC solvent is added to the coatings, as received)

Where:

$n$  is the number of different coatings used during the calendar month, and

$m$  is the number of different VOC solvents added to coatings used during the calendar month.

- B. Calculate the total volume of coating solids used ( $I_s$ ) in each calendar month for each affected facility by the following equation:

$$I_s = \sum_{i=1}^n V_{si} I_{ci} \quad \text{Equation 2}$$

Where:

$n$  is the number of different coatings used during the calendar month.

- C. Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied ( $G$ ) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{I_s} \quad \text{Equation 3}$$

- ii. Calculate the volume-weighted average of VOC emissions to the atmosphere ( $N$ ) during the calendar month for each affected facility by the following equation:

$$N = G \quad \text{Equation 4}$$

- iii. Where the volume-weighted average mass of VOC's discharged to the atmosphere per unit volume of coating solids applied ( $N$ ) is equal to or less than 0.28 kg/l, the affected facility is in compliance.
- iv. If each individual coating used by an affected facility has a VOC content, as received, that is equal to or less than 0.28 kg/l of coating solids, the affected facility is in compliance provided

no VOC's are added to the coatings during distribution or application.

- 14a. Pursuant to 40 CFR 60.466(a)(1), the reference methods in appendix A to 40 CFR Part 60, except as provided under 40 CFR 60.8(b), shall be used to determine compliance with 40 CFR 60.462 as follows: Method 24, or data provided by the formulator of the coating, shall be used for determining the VOC content of each coating as applied to the surface of the metal coil. In the event of a dispute, Method 24 shall be the reference method. When VOC content of waterborne coatings, determined by Method 24, is used to determine compliance of affected facilities, the results of the Method 24 analysis shall be adjusted as described in Section 12.6 of Method 24;
  - b. Pursuant to 40 CFR 60.466(b), for Method 24, the coating sample must be at least a 1-liter sample taken at a point where the sample will be representative of the coating as applied to the surface of the metal coil.
- 15a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
    - i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
    - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Conditions 16 and 17 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 16. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 17. Pursuant to 35 Ill. Adm. Code 218.211(a), the VOM content of each coating shall be determined by the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105 to establish the records required under 35 Ill. Adm. Code 218.211.
- 18. Pursuant to 40 CFR 60.464(a), where compliance with the numerical limit specified in 40 CFR 60.462(a)(1) or (2) is achieved through the use of low VOC-content coatings without the use of emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, the owner or operator shall compute and record the average VOC content of coatings applied during each calendar month for each affected facility, according to the equations provided in 40 CFR 60.463.
- 19a. Pursuant to 40 CFR 60.7(b), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- b. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
- 20. Pursuant to 40 CFR 60.465(e), each owner or operator subject to the provisions of 40 CFR 60 Subpart TT shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the

incinerator combustion temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed.

21. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
- 22a. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
  - b. Pursuant to 35 Ill. Adm. Code 212.324(g)(1), written records of inventory and documentation of inspections, maintenance, and repairs of all air pollution control equipment shall be kept in accordance with 35 Ill. Adm. Code 212.324(f).
  - c. Pursuant to 35 Ill. Adm. Code 212.324(g)(2), the owner or operator shall document any period during which any process emission unit was in operation when the air pollution control equipment was not in operation or was malfunctioning so as to cause an emissions level in excess of the emissions limitation. These records shall include documentation of causes for pollution control equipment not operating or such

malfunction and shall state what corrective actions were taken and what repairs were made.

- d. Pursuant to 35 Ill. Adm. Code 212.324(g)(3), a written record of the inventory of all spare parts not readily available from local suppliers shall be kept and updated.
  - e. Pursuant to 35 Ill. Adm. Code 212.324(g)(5), the records required under 35 Ill. Adm. Code 212.324 shall be kept and maintained for at least three (3) years and shall be available for inspection and copying by Illinois EPA representatives during working hours.
- 23a. Pursuant to 35 Ill. Adm. Code 218.187(e)(1)(B), the owner or operator of a source exempt from the limitations of 35 Ill. Adm. Code 218.187 because of the criteria in 35 Ill. Adm. Code 218.187(a)(1) shall on and after January 1, 2012, collect and record the following information each month for each cleaning operation, other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2):
- i. The name and identification of each VOM-containing cleaning solution as applied in each cleaning operation;
  - ii. The VOM content of each cleaning solution as applied in each cleaning operation;
  - iii. The weight of VOM per volume and the volume of each as-used cleaning solution;
  - iv. The total monthly VOM emissions from cleaning operations at the source;
- b. Pursuant to 35 Ill. Adm. Code 218.187(e)(10), all records required by this 35 Ill. Adm. Code 218.187(e) shall be retained by the source for at least three years and shall be made available to the Illinois EPA upon request.
- c. Pursuant to 35 Ill. Adm. Code 218.211(c)(2), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 other than 35 Ill. Adm. Code 218.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following: On and after a date consistent with 35 Ill. Adm. Code 218.106, or on and after the initial start-up date, the owner or operator of a subject coating line shall collect and record all of the following information each day, unless otherwise specified, for each coating line and maintain the information at the source for a period of three years:
- i. The name and identification number of each coating as applied on each coating line;

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- ii. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line;
- 24a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Records addressing use of good operating practices for the scrubber and turbo-tunnel enclosure:
    - A. Records for periodic inspection of the scrubber and turbo-tunnel enclosure with date, individual performing the inspection, and nature of inspection; and
    - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
  - ii. Daily HCl concentration in pickling tanks (wt.%);
  - ii. Daily pickling tank temperature (°F);
  - iii. Daily scrubber make-up water flow (gal/min);
  - iv. Daily pressure drop across the scrubber (in of w.c.);
  - v. Steel process rate (tons/mo, tons/yr);
  - vi. Hydrochloric acid usage (gal/mo, gal/yr);
  - vii. Coating and cleanup solvent usage (tons/month and tons/year);
  - viii. The VOM and HAP content of each coating and cleanup solvent (% by weight);
  - ix. Monthly and annual emissions of PM, VOM and HAP from the steel coil pickling line with supporting calculations (tons/month, tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA or USEPA request for records during the course of a source inspection.
- 25a. Pursuant to 40 CFR 60.7(a), any owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Illinois EPA or USEPA written notification or, if acceptable to both the Illinois EPA and

USEPA and the owner or operator of a source, electronic notification, as follows:

- i. A notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
  - ii. A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
  - iii. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Illinois EPA or USEPA may request additional relevant information subsequent to this notice.
- b. Pursuant to 40 CFR 60.465(a), where compliance with the numerical limit specified in 40 CFR 60.462(a) (1), (2), or (4) is achieved through the use of low VOC-content coatings without emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, each owner or operator subject to the provisions of 40 CFR 60 Subpart TT shall include in the initial compliance report required by 40 CFR 60.8 the weighted average of the VOC content of coatings used during a period of one calendar month for each affected facility. Where compliance with 40 CFR 60.462(a)(4) is achieved through the intermittent use of a control device, reports shall include separate values of the weighted average VOC content of coatings used with and without the control device in operation.
- c. Pursuant to 40 CFR 60.465(c), following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Illinois EPA or USEPA every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under 40 CFR 60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Illinois EPA or USEPA semiannually.
- 26a. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the



Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.

- b. Pursuant to 35 Ill. Adm. Code 212.324(g)(4), copies of all records required by 35 Ill. Adm. Code 212.324 shall be submitted to the Illinois EPA within ten (10) working days after a written request by the Illinois EPA.
- 27a. Pursuant to 35 Ill. Adm. Code 218.187(e)(1)(C), the owner or operator of a source exempt from the limitations of 35 Ill. Adm. Code 218.187 because of the criteria in 35 Ill. Adm. Code 218.187(a)(1) shall comply with the following: Notify the Illinois EPA of any record that shows that the combined emissions of VOM from cleaning operations at the source, other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2), ever equal or exceed 226.8 kg/month (500 lbs/month), in the absence of air pollution control equipment, within 30 days after the event occurs.
- b. Pursuant to 35 Ill. Adm. Code 218.211(c), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 other than 35 Ill. Adm. Code 218.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following:
  - i. By a date consistent with 35 Ill. Adm. Code 218.106, or upon initial start-up of a new coating line, or upon changing the method of compliance from an existing subject coating line from 35 Ill. Adm. Code 218.205, 35 Ill. Adm. Code 218.207, 35 Ill. Adm. Code 218.215, or 35 Ill. Adm. Code 218.216 to 35 Ill. Adm. Code 218.204; the owner or operator of a subject coating line shall certify to the Illinois EPA that the coating line will be in compliance with 35 Ill. Adm. Code 218.204 on and after a date consistent with 35 Ill. Adm. Code 218.106, or on and after the initial start-up date. The certification shall include:
    - A. The name and identification number of each coating as applied on each coating line;
    - B. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line;
  - ii. On and after a date consistent with 35 Ill. Adm. Code 218.106, the owner or operator of a subject coating line shall notify the Illinois EPA in the following instances:
    - A. Any record showing violation of 35 Ill. Adm. Code 218.204 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.

B. At least 30 calendar days before changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d)(1) or (e)(1), as applicable. Upon changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d) or (e), as applicable.

28a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or deviation and efforts to reduce emissions and future occurrences.

b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Illinois EPA  
Division of Air Pollution Control  
Compliance and Enforcement Section (#40)  
P.O. Box 19276  
Springfield, IL 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Illinois EPA  
Division of Air Pollution Control - Regional Office  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this permit, please contact Valeriy Brodsky at 217/785-1705.



Edwin C. Bakowski, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

*RUB*

Date Signed:

4/26/2017

ECB:VJB:jws

cc: Region 1



Electronic Filing Received Clerk's Office : 07/08/2015

STATE OF ILLINOIS  
ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF AIR POLLUTION CONTROL

P. O. BOX 19506  
SPRINGFIELD, ILLINOIS 62794-9506

**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.

There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

The permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:

- a. to enter the permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
- b. to have access to and to copy any records required to be kept under the terms and conditions of this permit,
- c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
- d. to obtain and remove samples of any discharge or emissions of pollutants, and
- e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

The issuance of this permit:

shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,

does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,

does not take into consideration or attest to the structural stability of any units or parts of the project, and

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
- b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
- a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

For assistance in preparing a permit application contact the Permit Section.

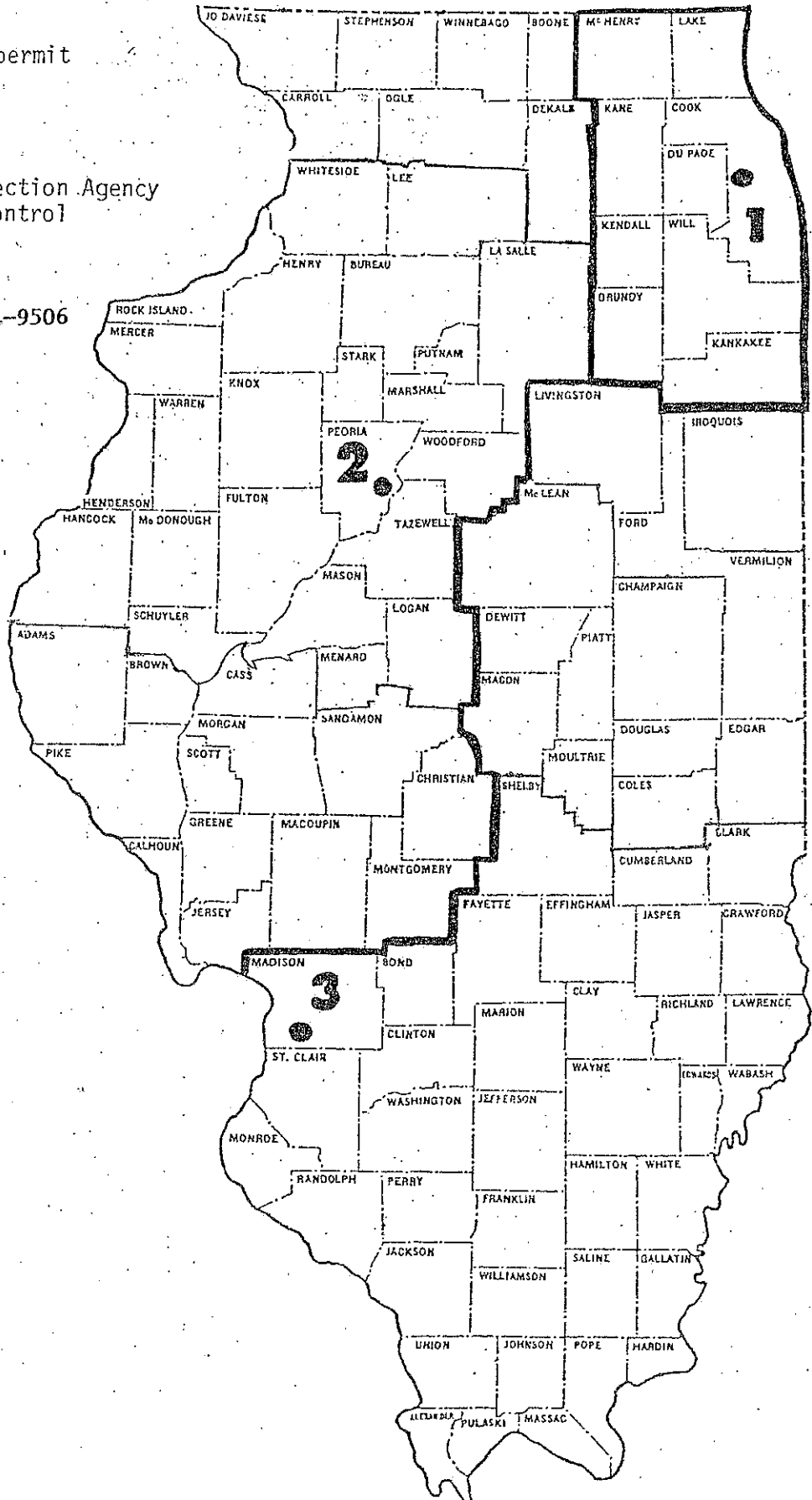
Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Permit Section  
1021 N. Grand Ave E.  
P.O. Box 19506  
Springfield, Illinois 62794-9506

Peoria is a regional office of the field Operations Section. The Peoria regional offices and their areas of responsibility are shown on the map. The addresses and telephone numbers of the regional offices are as follows:

Illinois EPA  
Region 1  
Bureau of air, FOS  
1511 West Harrison  
Des Plaines, Illinois 60016  
847/294-4000

Illinois EPA  
Region 2  
415 North University  
Peoria, Illinois 61614  
309/693-5463

Illinois EPA  
Region 3  
109 Mall Street  
Moline, Illinois 62234  
309/346-5120



## Exhibit F



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

*see next page  
and p. 4 of 5*

TO: Interested Parties / Applicant  
DATE: January 31, 2006  
RE: Kasle Metal Processing / 019-22372-00119  
FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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 from 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-AM.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

January 31, 2006

Mr. Thomas Woods  
Kasle Metal Processing  
5146 Maritime Road  
Jeffersonville, IN 47130

Dear Mr. Woods:

Re: Exempt Construction and Operation Status,  
019-22372-00119

The application from Kasle Metal Processing, received on December 15, 2005 has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following steel blanking facility, to be located at 5146 Maritime Road, Jeffersonville, Indiana, is classified as exempt from air pollution permit requirements:

- (a) Two (2) EGL-1 application lines, applying rust preventive surface coating to steel blanks, (identified as EGL Application Line 1 and 2), with a maximum capacity of 300 feet per minute, each, using no control, exhausting to the atmosphere.
- (b) Two (2) wash lines (identified as Wash Line 1 and 2), with a maximum capacity of 300 feet per minute, each, using no control, exhausting to the atmosphere.
- (c) Two (2) 2.5 MMBtu Natural gas-fired boilers, identified as Boiler 1 and 2, using no control, exhausting to the atmosphere.
- (d) Four (4) 1.55 MMBtu Natural gas-fired Air Make-Up Units, with no unit I.D.'s and using no control, exhausting to the atmosphere.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.



Kasle Metal Processing  
Jeffersonville, Indiana  
Permit Reviewer: James Farrell

Page 2 of 2  
019-22372-00119

- (2) Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d)), particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where

Q = total source heat input capacity (MMBtu/hr)  
Pt = emission rate limit (lbs/MMBtu)

Therefore, particulate emissions from the two (2) 2.5 MMBtu/hr boilers shall not exceed 0.6 lb/MMBtu heat input.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Origin signed by

Nysa L. James, Section Chief  
Permits Branch  
Office of Air Quality

JF

cc: File - Clark County  
Clark County Health Department  
Air Compliance - Ray Schick  
Permit Review Section #1 - James Farrell

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

Technical Support Document (TSD) for an Exemption

**Source Background and Description**

<b>Source Name:</b>	<b>Kasie Metal Processing</b>
<b>Source Location:</b>	<b>5146 Maritime Road, Jeffersonville, IN 47130</b>
<b>County:</b>	<b>Clark</b>
<b>SIC Code:</b>	<b>3479</b>
<b>Operation Permit No.:</b>	<b>019-22372-00119</b>
<b>Permit Reviewer:</b>	<b>James Farrell</b>

The Office of Air Quality (OAQ) has reviewed an application from Kasie Metal Processing relating to the construction and operation of a steel blanking facility. The steel blanking process shapes steel coils into blanks and then applies a non-HAP surface coating as a rust preventative.

**New Emission Units and Pollution Control Equipment**

The source consists of the following emission units and pollution control devices:

- (a) Two (2) EGL-1 application lines, applying rust preventive surface coating to steel blanks, (identified as EGL Application Line 1 and 2), with a maximum capacity of 300 feet per minute, each, using no control, exhausting to the atmosphere.
- (b) Two (2) wash lines (identified as Wash Line 1 and 2), with a maximum capacity of 300 feet per minute, each, using no control, exhausting to the atmosphere.
- (c) Two (2) 2.5 MMBtu Natural gas-fired boilers, identified as Boiler 1 and 2, using no control, exhausting to the atmosphere.
- (d) Four (4) 1.55 MMBtu Natural gas-fired Air Make-Up Units, with no unit I.D.'s and using no control, exhausting to the atmosphere.

**Enforcement Issue**

There are no enforcement actions pending.

**Recommendation**

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on December 15, 2005.

**Emission Calculations**

The calculations submitted by the applicant have been verified and found to be accurate and correct. The calculations can be found in the application file.

**Potential to Emit Source Before Controls**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential to Emit (tons/yr)
PM	0.38
PM-10	0.38
SO <sub>2</sub>	0.03
VOC	3.17
CO	4.12
NO <sub>x</sub>	4.91

HAPs	Potential to Emit (tons/yr)
Single HAP	<10
Combination HAPs	<25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

**County Attainment Status**

The source is located in Clark County.

Pollutant	Status Status
PM-10	Attainment
PM-2.5	Nonattainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Basic Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Clark County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.
- (b) Clark County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions pursuant to the Non-attainment New Source Review requirements.
- (c) Clark County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

#### Source Status

New Source PSD Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	<5
PM-10	<5
SO <sub>2</sub>	<10
VOC	<10
CO	<25
NO <sub>x</sub>	<10
Single HAP	<10
Combination HAPs	<25

- (a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater, no nonattainment pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2 and 2-3, the PSD and Emission Offset requirements do not apply.

#### Part 70 Permit Determination

##### 326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,  
 (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and  
 (c) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

**Federal Rule Applicability**

- (a) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR 60.460, Subpart TT – Standards and Performance for Metal Coil Surface Coating Operations, which applies to prime coat, finish coat and prime and finish coat combined operations because it is not a prime or finish coat operation. Therefore, this NSPS is not included in this exemption.
- (b) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR 60.40c, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which applies to steam generating units constructed, modified or reconstructed after June 9, 1989 and has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr) because each of the boilers have heat input values of less than 10 million Btu/hr. Therefore, this NSPS is not included in this exemption.
- (c) The metal coil surface coating unit is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart Mmmm – (Surface Coating of Miscellaneous Metal Part and Products) because it does not apply topcoat to automobile or light-duty truck body parts and is not a major source of HAPs.
- (d) The metal coil surface coating unit is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart Ssss – (Surface Coating of Metal Coil) because it is not a major source of HAPs.
- (e) The two (2) 2.5 MMBtu/hr boilers are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart Dddd – Standards for Industrial, Commercial and Institutional Boilers and Process Heaters, because it is not a major source of HAPs.

**State Rule Applicability – Entire Source**

**326 IAC 2-6 (Emission Reporting)**

This source is not required to have an operating permit under 326 IAC 2-7, does not emit lead into the ambient air at levels  $\geq 5$  tpy, and is located in Clark County. Therefore, 326 IAC 2-6 does not apply.

**326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

**State Rule Applicability – Individual Facilities**

**326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**

The operation of this steel blanking facility will emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

Kasle Metal Processing  
 Jeffersonville, Indiana  
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326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d))

Pursuant to 326 IAC 6-2-4(a) particulate emissions from indirect heating constructed after September 21, 1983 shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.25}}$$

where

Q = total source heat input capacity (MMBtu/hr)  
 Pt = emission rate limit (lbs/MMBtu)

Therefore, particulate emissions from the two (2) 2.5 MMBtu/hr boiler shall not exceed 0.6 lb/MMBtu heat input because the total source maximum operating capacity heat input for indirect heating is less than 10 MMBtu/hr.

326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(d))

This rule is not applicable to the air make-up units because they are not sources of indirect heating. Therefore, the requirements of 326 IAC 6-2-4 do not apply to the air make-up units.

326 IAC 6-3-1 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 6-3-1(b)(1), the two (2) 2.5 MMBtu boilers are exempt from the requirements of 6-3-1 because it uses combustion for indirect heating. Therefore, the requirements of 326 IAC 6-3-1 do not apply to the boilers.

326 IAC 6-3-2 (Particulate Emission Limitations, Work Practices, and Control Technologies)

The emission units at this source have negligible Particulate emissions. Therefore the requirements of 326 IAC 6-3-2 do not apply.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The potential emissions from this steel blanking facility are less than 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

326 IAC 8-2-1 (Surface Coating Emissions Limitations)

This source is located in Clark County, the potential to emit of VOC from the facility is less than twenty-five (25) tons per year and actual emissions are less than fifteen (15) pounds per day. Therefore, pursuant to 326 IAC 8-2-1, 326 IAC 8-2-4 (Coil Coating Operations) and 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) do not apply.

326 IAC 8-7-1 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

This source is located in Clark County, and the potential to emit of VOC is less than 100 tons per year and the coating facility has less than ten (10) tons per year of VOC. Therefore, 326 IAC 8-7-1 does not apply.

**Conclusion**

The construction and operation of this steel blanking facility shall be subject to the conditions of the Exemption 019-22372-00119.

## Exhibit G

See P. 4 of 6  
on TSD

**PART 70 SIGNIFICANT SOURCE MODIFICATION  
OFFICE OF AIR MANAGEMENT**

**Ispat Inland, Inc.  
3210 Watling Street  
East Chicago, Indiana 46312**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2, 326 IAC 2-3, 40 CFR 52.780 and 40 CFR 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 089-10472-00316	
Issued by:  Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:



Ispat Inland, Inc.  
 East Chicago, Indiana  
 Permit Reviewer: Bryan Sheets

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 and Section D.1 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates an integrated steel mill.

Responsible Official: John D. Fekete  
 Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
 Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312  
 SIC Code: 3312  
 County Location: Lake  
 County Status: Nonattainment for PM<sub>10</sub>, SO<sub>2</sub>, ozone and CO (portions only)  
 Attainment area for all other criteria pollutants  
 Source Status: Part 70 Permit Program  
 Major Source, under PSD and Emission Offset Rules;  
 Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This permit is to construct and operate a continuous coating line (CCL No. 6), with a maximum throughput of 600,000 tons per year, consisting of the following emissions units:

- (a) One (1) electrical resistance welder exhausting inside the building.
- (b) One (1) alkali cleaning system, consisting of electrolytic and sodium hydroxide dunk tanks, and a brush scrubbers rinse tank, and exhausting inside the building.
- (c) One (1) natural gas-fired strip dryer, identified as source ID 250, with a heat input capacity of 2.04 million Btu per hour, and exhausting inside the building.
- (d) One (1) natural gas-fired radiant tube furnace heating section, identified as source ID 251A, with a heat input capacity of 102.05 million Btu per hour, and exhausting through one (1) stack, identified as 251.
- (e) One (1) natural gas-fired radiant tube furnace soaking section, identified as source ID 251B, with a heat input capacity of 5.4 million Btu per hour, and exhausting through one (1) stack, identified as 251.
- (f) Two (2) zinc pots, one (1) aluminum pot, one (1) zinc premelt pot, and one (1) aluminum zinc premelt pot, with electric induction heating for each pot, and all exhausting inside the building.
- (g) One (1) natural gas-fired galvanneal soaking furnace, identified as source ID 252, with a heat input capacity of 6.5 million Btu per hour, and exhausting inside the building.
- (h) One (1) natural gas-fired strip dryer, identified as source ID 253, with a heat input capacity of 2.04 million Btu per hour, and exhausting inside the building.

- (i) One (1) chem-treat roll coating system with one (1) natural gas-fired strip dryer, identified as source ID 254, with a heat input capacity of 2.05 million Btu per hour, and exhausting inside the building.
- (j) One (1) phosphate roll coating system with one (1) natural gas-fired infra-red furnace, identified as source ID 255, with a heat input capacity of 9.36 million Btu per hour, and exhausting inside the building.
- (k) Three (3) electrostatic oilers exhausting inside the building.
- (l) Natural gas-fired space heaters, identified as source ID 256, with a heat input capacity of 77.52 million Btu per hour, and exhausting through one (1) stack, identified as 256.
- (m) One (1) natural gas-fired boiler, identified as source ID 257, with a heat input capacity of 22.95 million Btu per hour, and exhausting through one (1) stack, identified as 257.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

This source has submitted their Part 70 (T-089-6577-00316) application on September 16, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

**SECTION B GENERAL CONSTRUCTION CONDITIONS**

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

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**B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]**

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emissions units differs from the construction proposed in the application such that a modification is required by 326 IAC 2-1.1 and 326 IAC 2-7-10.5, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.
- (c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

**SECTION C**

**GENERAL OPERATION CONDITIONS**

**C.1 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]**

- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this approval, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

**C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]**

- (a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within the date of initial start-up, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

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- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.
- (b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this approval:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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East Chicago, Indiana  
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C.5 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**Testing Requirements [326 IAC 2-7-6(1)]**

C.6 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

C.7 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this approval. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, within the date of initial start-up. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]****C.8 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]****C.9 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]**

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.10 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
- (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
- (1) Copies of all reports required by this approval;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented upon initial start-up of these facilities.

C.11 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this approval shall be submitted to:



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Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of initial start-up and ending on the last day of the reporting period.

## SECTION D.1

## FACILITY CONDITIONS

## Facility Description [326 IAC 2-7-5(15)]

The No. 6 Continuous Coating Line, with a maximum throughput of 600,000 tons per year, consisting of the following equipment:

- (a) One (1) electrical resistance welder exhausting inside the building.
- (b) One (1) alkali cleaning system, consisting of electrolytic and sodium hydroxide dunk tanks, and a brush scrubbers rinse tank, and exhausting inside the building.
- (c) One (1) natural gas-fired strip dryer, identified as source ID 250, with a heat input capacity of 2.04 million Btu per hour, and exhausting inside the building.
- (d) One (1) natural gas-fired radiant tube furnace heating section, identified as source ID 251A, with a heat input capacity of 102.05 million Btu per hour, and exhausting through one (1) stack, identified as 251.
- (e) One (1) natural gas-fired radiant tube furnace soaking section, identified as source ID 251B, with a heat input capacity of 5.4 million Btu per hour, and exhausting through one (1) stack, identified as 251.
- (f) Two (2) zinc pots, one (1) aluminum pot, one (1) zinc premelt pot, and one (1) aluminum zinc premelt pot, with electric induction heating for each pot, and all exhausting inside the building.
- (g) One (1) natural gas-fired galvaneal soaking furnace, identified as source ID 252, with a heat input capacity of 6.5 million Btu per hour, and exhausting inside the building.
- (h) One (1) natural gas-fired strip dryer, identified as source ID 253, with a heat input capacity of 2.04 million Btu per hour, and exhausting inside the building.
- (i) One (1) chem-treat roll coating system with one (1) natural gas-fired strip dryer, identified as source ID 254, with a heat input capacity of 2.05 million Btu per hour, and exhausting inside the building.
- (j) One (1) phosphate roll coating system with one (1) natural gas-fired infra-red furnace, identified as source ID 255, with a heat input capacity of 9.36 million Btu per hour, and exhausting inside the building.
- (k) Three (3) electrostatic oilers exhausting inside the building.
- (l) Natural gas-fired space heaters, identified as source ID 256, with a heat input capacity of 77.52 million Btu per hour, and exhausting through one (1) stack, identified as 256.
- (m) One (1) natural gas-fired boiler, identified as source ID 257, with a heat input capacity of 22.95 million Btu per hour, and exhausting through one (1) stack, identified as 257.

## Emission Limitations and Standards [326 IAC 2-7-5(1)]

## D.1.1 Particulate Matter (PM) [326 IAC 6-1-2] [326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the combustion facilities (Source ID 250, 251A, 251B and 252 through 256) shall not exceed 0.01 grain per dry standard cubic foot (gr/dscf).

- (b) Pursuant to 326 IAC 6-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the non-combustion facilities, including the electric resistance welder and alkali cleaning system, shall not exceed 0.03 grain per dry standard cubic foot (gr/dscf).
- (c) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate matter (PM) emissions from the boiler (Source ID 257) shall not exceed 0.116 pound per million Btu (lb/MMBtu) heat input. This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} \quad \text{where } Q = \text{Total source heat input capacity (MMBtu/hr); and}$$

$$Pt = \text{Allowable emission rate (lb/MMBtu)}$$

#### D.1.2 Emission Offset [326 IAC 2-3]

- (a) The natural gas-fired space heaters (Source ID 256) shall use less than 300 million cubic feet (MMCF) per twelve (12) consecutive month period. This usage limit is required to limit the potential to emit NO<sub>x</sub> from the space heaters to 15 tons per year. Therefore, the Permittee will have enough NO<sub>x</sub> offset credits to meet the requirements of 326 IAC 2-3 (Emission Offset) for this project.
- (b) Pursuant to 326 IAC 2-3 (Emission Offset), the 76" Hot Strip Mill, 100" Plate Mill and No. 4 Slabber Pits #19 through 45 shall be permanently shut down prior to operation of the No. 6 Continuous Coating Line. Therefore, the Permittee shall meet the requirements to offset their VOC and NO<sub>x</sub> increases from this project. These shutdowns will provide 502.3 tons of NO<sub>x</sub> and 7.3 tons of VOC.
- (c) The volatile organic compound (VOC) emissions from the radiant tube furnace heating and soaking sections (Source IDs 251A and 251B) shall not exceed 1.4 pounds per million cubic feet (lb/MMCF). Therefore, the Permittee shall meet the offset requirements of 326 IAC 2-3 (Emission Offset).

#### D.1.3 Heat Input Capacities

The heat input capacities stated in the application and in the description of equipment shall be limited as follows:

- (a) The natural gas-fired strip dryer, identified as source ID 250, shall not exceed a heat input capacity of 2.04 million Btu per hour.
- (b) The natural gas-fired radiant tube furnace heating section, identified as source ID 251A, shall not exceed a heat input capacity of 102.05 million Btu per hour.
- (c) The natural gas-fired radiant tube furnace soaking section, identified as source ID 251B, shall not exceed a heat input capacity of 5.4 million Btu per hour.
- (d) The natural gas-fired galvanneal soaking furnace, identified as source ID 252, shall not exceed a heat input capacity of 6.5 million Btu per hour.
- (e) The natural gas-fired strip dryer, identified as source ID 253, shall not exceed a heat input capacity of 2.04 million Btu per hour.
- (f) The natural gas-fired strip dryer, identified as source ID 254, shall not exceed a heat input capacity of 2.05 million Btu per hour.

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- (g) The natural gas-fired infra-red furnace, identified as source ID 255, shall not exceed a heat input capacity of 9.36 million Btu per hour.
- (h) The natural gas-fired space heaters, identified as source ID 256, shall not exceed a heat input capacity of 77.52 million Btu per hour.
- (i) The natural gas-fired boiler, identified as source ID 257, shall not exceed a heat input capacity of 22.95 million Btu per hour.

D.1.4 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the boiler exhausting to stack 257 described in this section except when otherwise specified in 40 CFR Part 60, Subpart Dc.

D.1.5 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]

All combustion facilities listed in this permit shall use natural gas as the only fuel. Therefore, the requirements of 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) will not apply.

D.1.6 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for these facilities.

**Compliance Determination Requirements**

D.1.7 Testing Requirements [326 IAC 2-1-4(f)] [326 IAC 3-6]

The Permittee shall perform compliance stack tests for VOC emissions from the radiant tube furnace heating and soaking sections (Source IDs 251A and 251B) within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. These tests shall be performed in accordance with Section C - Performance Testing using the methods specified in the rule or as approved by the Commissioner. In addition to these requirements, IDEM may require compliance testing when necessary to determine if these facilities are in compliance.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.1.8 Record Keeping Requirements [326 IAC 2-1-3(i)(8)]

- (a) To document compliance with Condition D.1.2(a), the Permittee shall maintain the following records:
  - (1) Calendar dates covered in the compliance determination period; and
  - (2) Actual natural gas usage for the space heaters since last compliance determination period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.9 Reporting Requirements [326 IAC 2-1-3(i)(8)]

A quarterly summary of the information to document compliance with Condition D.1.2(a) shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or its equivalent, within thirty (30) days of the end of the reporting period.

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**PART 70 SOURCE MODIFICATION  
CERTIFICATION**

Source Name: Ispat Inland, Inc.  
Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312  
Source Modification No.: 089-10472-00316

<b>This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.</b>	
Please check what document is being certified:	
<input type="checkbox"/>	Test Result (specify) _____
<input type="checkbox"/>	Report (specify) _____
<input type="checkbox"/>	Notification (specify) _____
<input type="checkbox"/>	Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.	
Signature: _____	
Printed Name: _____	
Title/Position: _____	
Date: _____	

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR MANAGEMENT  
 COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: Ispat Inland, Inc.  
 Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
 Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312  
 Source Modification No.: 089-10472-00316  
 Facility: Space Heating (Source ID 256)  
 Parameter: Natural Gas Usage  
 Limit: 300 million cubic feet (MMCF) per twelve (12) consecutive month period

YEAR: \_\_\_\_\_

Month	Natural Gas Usage This Month (MMCF)	Natural Gas Usage Previous 11 Months (MMCF)	Natural Gas Usage 12 Month Total (MMCF)

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

## Exhibit H

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

**Technical Support Document (TSD) for New Construction and Operation**

**Source Background and Description**

Source Name: Ispat Inland, Inc.  
Source Location: 3210 Watling Street, East Chicago, Indiana 46312  
County: Lake  
Construction Permit No.: CP-089-10472-00316  
SIC Code: 3312  
Permit Reviewer: Bryan Sheets

The Office of Air Management (OAM) has reviewed an application from Ispat Inland, Inc. (Inland), relating to the construction and operation of the No. 6 Continuous Coating Line, which will galvanize steel sheets at a maximum capacity of 200,000 tons per year. The No. 6 Continuous Coating Line, consists of the following equipment:

- (a) One (1) electrical resistance welder exhausting inside the building.
- (b) One (1) alkali cleaning system, consisting of electrolytic and sodium hydroxide dunk tanks, and a brush scrubbers rinse tank, and exhausting inside the building.
- (c) One (1) natural gas-fired strip dryer, identified as source ID 250, with a heat input capacity of 2.04 million Btu per hour, and exhausting inside the building.
- (d) One (1) natural gas-fired radiant tube furnace heating section, identified as source ID 251A, with a heat input capacity of 102.05 million Btu per hour, and exhausting through one (1) stack, identified as 251.
- (e) One (1) natural gas-fired radiant tube furnace soaking section, identified as source ID 251B, with a heat input capacity of 5.4 million Btu per hour, and exhausting through one (1) stack, identified as 251.
- (f) Two (2) zinc pots, one (1) aluminum pot, one (1) zinc premelt pot, and one (1) aluminum zinc premelt pot, with electric induction heating for each pot, and all exhausting inside the building.
- (g) One (1) natural gas-fired galvaneal soaking furnace, identified as source ID 252, with a heat input capacity of 6.5 million Btu per hour, and exhausting inside the building.
- (h) One (1) natural gas-fired strip dryer, identified as source ID 253, with a heat input capacity of 2.04 million Btu per hour, and exhausting inside the building.
- (i) One (1) chem-treat roll coating system with one (1) natural gas-fired strip dryer, identified as source ID 254, with a heat input capacity of 2.05 million Btu per hour, and exhausting inside the building.
- (j) One (1) phosphate roll coating system with one (1) natural gas-fired infra-red furnace, identified as source ID 255, with a heat input capacity of 9.36 million Btu per hour, and exhausting inside the building.
- (k) Three (3) electrostatic oilers exhausting inside the building.



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- (l) Natural gas-fired space heaters, identified as source ID 256, with a heat input capacity of 77.52 million Btu per hour, and exhausting through one (1) stack, identified as 256.
- (m) One (1) natural gas-fired boiler, identified as source ID 257, with a heat input capacity of 22.95 million Btu per hour, and exhausting through one (1) stack, identified as 257.

**Recommendation**

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, 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 December 17, 1998, with additional information received on January 25, 26 and 29, 1999.

**Emissions Calculations**

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (2 pages).

**Total Potential and Allowable Emissions**

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	79.75	7.5
Particulate Matter (PM10)	79.75	7.5
Sulfur Dioxide (SO <sub>2</sub> )	0.6	0.6
Volatile Organic Compounds (VOC)	3.42	3.42
Carbon Monoxide (CO)	82.9	82.9
Nitrogen Oxides (NO <sub>x</sub> )	211.5	211.5
Single Hazardous Air Pollutant (HAP)	1.78	1.78
Combination of HAPs	1.86	1.86

- (a) Allowable PM emissions for the boiler are determined from the applicability of rule 326 IAC 6-2-4. Allowable PM emissions from the remaining facilities are determined from the applicability of rule 326 IAC 6-1-2. PM is assumed to equal PM<sub>10</sub>. See attached spreadsheets for detailed calculations.
- (b) The allowable emissions for the boiler and coating line based on the rules cited are greater than the potential emissions, therefore, the potential emissions are used for the permitting determination.
- (c) Allowable emissions (as defined in the Indiana Rule) of NO<sub>x</sub> are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

**County Attainment Status**

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. A portion of Lake County has been designated as nonattainment for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Portions of Lake County have also been classified as nonattainment for CO, PM<sub>10</sub> and SO<sub>2</sub>. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (c) Inland is located in the portion of Lake County classified as nonattainment for the above mentioned pollutants.

**Source Status**

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1,089
PM10	1,089
SO <sub>2</sub>	14,595
VOC	4,525
CO	5,434
NO <sub>x</sub>	12,009

- (a) This existing source is a major stationary source because it is in one of the 28 listed source categories and at least one regulated pollutant is emitted at a rate of 100 tons per year or more.
- (b) These emissions were based on the Facility Quick Look Report, dated 1996.

**Proposed Modification**

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM <sub>10</sub> (ton/yr)	SO <sub>2</sub> (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO <sub>x</sub> (ton/yr)
Proposed Modification	6.1	6.1	0.5	2.82	67.5	193.2
Contemporaneous Increases from No.1 Normalizer Preheater Furnace, Annealing Furnace for No.1 Normalizer, No. 5 Galvanizing Line Radiant Tube Furnace, HRCC Project and Vacuum Degasser (proposed)				22.8		
Contemporaneous Decreases						
Net Emissions	6.1	6.1	0.5	25.6	67.5	193.2
Emission Offset Significant Level	25	15	40	25	100	40

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Note: The natural gas usage at the space heating unit will be limited to 300 MMCF per year. Therefore, Inland will have enough NO<sub>x</sub> credits to meet the requirements of 326 IAC 2-3 (Emission Offset).

This modification to an existing major stationary source is major for VOC and NO<sub>x</sub> because the emissions increases are greater than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do apply.

#### Part 70 Permit Determination

##### 326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T-089-6577-00316) application on September 16, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

#### Federal Rule Applicability

The 22.95 million Btu per hour boiler is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60, Subpart Dc). However, there are no applicable requirements for a boiler that combusts only natural gas.

The application of rust preventative oils to the steel coils is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60, Subpart TT) because this rule only applies to coating operations which use a curing oven and quench station as part of the process.

There are no other New Source Performance Standards (326 IAC 12) or National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61 and 63) applicable to this source.

#### State Rule Applicability

##### 326 IAC 2-3 (Emission Offset)

Pursuant to 326 IAC 2-3 (Emission Offsets), the following requirements shall be satisfied:

- (a) The applicant shall demonstrate that all existing major sources owned or operated by the applicant in the state of Indiana are in compliance with all applicable emissions limitations and standards contained in the CAA and in this title. The Office of Enforcement has stated that there are no outstanding or unresolved issues for Inland as of February 11, 1999. Therefore, this requirement has been satisfied.
- (b) The applicant will apply emission limitation devices or techniques to the proposed construction or modification such that the lowest achievable emission rate (LAER) for the applicable pollutant will be achieved. Inland will substitute an additional 1.3 offset amount as allowed by 326 IAC 2-3-2(b)(3). Therefore, this requirement has been satisfied.
- (c) The applicant shall submit an analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source which demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification. The OAM has reviewed and accepted the alternative site analysis submitted by Ispat Inland, Inc. Therefore, this requirement has been satisfied.
- (d) VOC and NO<sub>x</sub> emissions resulting from the proposed construction or modification shall be offset by a reduction in actual emissions of the same pollutant from an existing source or a combination of existing sources.

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For severe ozone nonattainment the minimum offset requirement is 1.3 to 1. The following calculation demonstrates that Ispat Inland, Inc. shall meet this requirement:

	NO <sub>x</sub> (tons/yr)	VOC (tons/yr)
Project Emissions	193.2	2.82
Required Offsets (Project Emissions x 2.6)*	502.3	7.3
Available Offsets	532.1	11.0
Shutdown of 76" Hot Strip Mill (in 1995)	353.9	11.0
Shutdown of 100" Plate Mill (in 1995)	122.7	
Shutdown of No. 4 Slabber Pits 19-45 (in 1996)	55.5	
Excess Emission Credits	29.8	3.7

\* The emissions are multiplied by 1.3 as required by 326 IAC 2-3-3, and an additional 1.3 substituted for LAER, pursuant to 326 IAC 2-3-2.

Since the credits are greater than offsets required by this rule, inland complies with the requirements of 326 IAC 2-3 (Offset Emissions). After completion of this proposed modification, Inland has available offset credits from the No. 4 Slabber Pits 19-45 in the amount of 29.8 tons of NO<sub>x</sub>/yr and from the 76" Hot Strip Mill in the amount of 3.7 tons of VOC/yr.

326 IAC 2-6 (Emission Reporting)

These facilities are subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 10 tons/yr of VOC and NO<sub>x</sub> in Lake County . Pursuant to this rule, the owner/operator of this source must annually submit an emission statement of the source. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 4-1 (Open Burning)

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit

- (a) Opacity shall not exceed an average of twenty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

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326 IAC 6-1-2 (Nonattainment Area Particulate Limitations)

Particulate matter emissions from all combustion facilities, excluding the boiler which is regulated by 326 IAC 6-2-4, shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf). These include all facilities exhausting to stacks 250 through 256. Particulate matter emissions from all other noncombustion facilities, including the electrical resistance welder and alkali cleaning system, shall not exceed 0.03 grains per dry standard cubic foot.

326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating)

The 22.95 MMBtu/hr natural gas-fired boiler is subject 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating). Pursuant to 326 IAC 6-2-4, the particulate matter (PM) emissions shall be limited to 0.116 pounds per million BTU heat input because the source's total heat input capacity is 5465.3 MMBtu/hr. The limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} \quad \text{where } Q = \text{Total source heat input capacity (MMBtu/hr); and} \\ Pt = \text{Allowable emission rate (lb/MMBtu)}$$

326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitation)

All of the combustion units associated with this project will be required to use natural gas as the only fuel. Therefore, the requirements of 326 IAC 7-1.1 will not apply.

326 IAC 8-2-4 (Coil Coating Operations)

The process of applying zinc, aluminum and oils to the steel coils are not subject to this rule because actual emissions of VOC from the coating operations will be less than 15 pounds per day.

**Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 189 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This modification will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See attached spreadsheets for detailed air toxic calculations.

**Conclusion**

The construction of this continuous coating line will be subject to the conditions of the attached proposed **Construction Permit No. CP-089-10472-00316**.

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

**Addendum to the  
Technical Support Document for New Construction and Operation**

Source Name: Ispat Inland, Inc.  
Source Location: 3210 Watling Street, East Chicago, Indiana 46312  
County: Lake  
Construction Permit No.: CP-089-10472-00316  
SIC Code: 3312  
Permit Reviewer: Bryan Sheets

On April 2, 1999, the Office of Air Management (OAM) had a notice published in the Gary Post Tribune, Gary, Indiana, stating that Ispat Inland, Inc. had applied for a construction permit to construct and operate a continuous coating line used to galvanize steel coils. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On April 23, 1999, the U.S. EPA submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows (changes are bolded for emphasis):

Comment 1:

The potential emission numbers for NO<sub>x</sub> and VOC on page 2 of the TSD (211.5 for NO<sub>x</sub> and 3.42 for VOC) are slightly higher than the amounts listed on page 3, why is there are difference in the numbers.

Response 1:

The table on page 2 of the TSD lists potential emissions based on the enforceable emission factors and operation at 8,760 hours per year. The table on page 3 lists the limited potential to emit, which in this case includes a natural gas usage limit for the space heating unit.

Comment 2:

The emissions calculations do not include the following equipment: electrical resistance welder, alkali cleaning system, 2 zinc pots, aluminum pot, and zinc premelt pot. Aren't there any emissions from these units?

Response 2:

The zinc and aluminum pots are electrically heated and contain only molten zinc and aluminum and are not considered to have any emissions. The alkali cleaning system consists of two tubs, one with an alkali solution and scrubbers and the other a rinse tank. Since the scrubbers are located under the alkali solution, no emissions are expected from this operation. And finally, the OAM is unaware of any emission factors for electrical resistance welding and based on past permitting and field experience believes that the welding will have negligible amounts of particulate matter emissions.

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East Chicago, Indiana  
Permit Reviewer: Bryan Sheels

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Therefore, the OAM did not perform any emissions calculation for this equipment.

Comment 3:

The calculations show that 0.31 tpy of VOC are emitted from the electrostatic oilers. Are any other pollutants emitted from these oilers?

Response 3:

The electrostatic oilers apply a very small amount of oil to the steel sheets before they are rolled into coils. This type of application produces negligible amounts of particulate matter. Therefore, the OAM believes that VOC is the only measurable pollutant emitted.

Comment 4:

The shutdown of the 76" Hot Strip Mill, 100" Plate Mill, and #4 Slabber Pits is used to obtain the 2.6 to 1 in NOx and VOC offsets. Are these offset credit amounts based on last 2 years of actual emissions at these facilities?

Response 4:

The offset credit amounts for the 76" Hot Strip Mill and 100" Plate Mill were both based on the last 2 years of actual emission at those facilities. However, the #4 Slabber Pits offset credits were based on 1993 and 1994 data even though it was shut down in 1996. This was due to the fact that in 1995 almost all of the steel made at the BOFs were taken to the continuous casters instead of being cast into ingots. Therefore, the slabber pits were not utilized in a manner consistent with their previous operations. Inland has provided emissions records which indicate that the years used were representative of normal operations and were not used just because they were peak years.

Comment 5:

Permit condition D.1.2(c) limits the VOC emission rate for the radiant tube furnace heating and soaking sections and the galvanneal soaking section. How will this rate be achieved (controls? throughput limits?)? Also, how will compliance with the 1.4 lb/MMCF be verified?

Response 5:

The VOC emission rate for the galvanneal soaking section is not 1.4 lbs/MMCF and the wording in Condition D.1.2(c) will be corrected. The limit of 1.4 lbs/MMCF for the radiant tube furnace heating and soaking sections will be verified during stack tests required by Condition D.1.7.

Comment 6:

Permit condition D.1.3 limits the heat input capacities for several units. If these are not the physical capacities of the units- a)how are these restrictions achieved?; and b)how will these limits be verified?

Response 6:

Since this permit relies on emission offsets for NOx, the OAM felt that it was necessary to make the heat input capacities for the combustion units federally enforceable. These are their maximum capacities and are not further limited in any way.

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On April 30, 1999, Ispat Inland, Inc. (Inland) submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows (changes are bolded for emphasis):

Comment 1:

Inland submitted several comments regarding Condition B.5. They are summarized below.

On page 5 of 15, Condition B.5(a) should state: "The attached affidavit of construction...verifying that the emission units were constructed ~~as proposed in the application~~ **in conformity with the requirements and intent of the construction permit application.**"

As proposed, the language is slightly different than the affidavit language. Certification in the affidavit is based on the facility being constructed in accordance with the intent of the application. For example, if the furnace dimensions are slightly different than shown in the application (with no effect on air quality), the affidavit can still be signed because the intent of the application has not been altered (no effect on air quality).

Response 1:

The affidavit of construction form must meet the minimum requirements of 326 IAC 2-7-10.5(h). An affidavit of construction may still be submitted even if there have been changes in construction. The requirements of 326 IAC 2-7-10.5(h) allow the source to include any changes to equipment that may be different than what was proposed in the application. If these changes do not affect permitting determinations, a operation permit validation letter will be issued. The IDEM, OAM does not believe it is necessary to change the language as requested in the first sentence of Condition B.5(a).

Comment 2:

On page 5 of 15, Condition B.5(a) should state: "The emissions units covered in the Significant Source Modification approval may begin operating **commercial operation** on the date...proposed. **Commercial operation shall be defined as the date the first coil is produced at No. 6 Continuous Coating Line to fulfill a customer order.**"

Some equipment, such as burners, may be installed and tested in phases prior to or in conjunction with the construction of other emissions units. Testing equipment during construction is normal and necessary to assure proper operation. However, burner testing may be considered start of operation requiring an affidavit.

Response 2:

The suggested language would allow a source to start production prior to receiving the operation permit validation letter, which defeats the intent of the rule. If it is necessary for Inland to complete construction in phases, more than one affidavit of construction may be submitted. This should allow Inland to construct and test a unit after an operation permit validation letter has been issued for that unit while construction is still proceeding on other emissions units at the source. The IDEM, OAM does not believe it is necessary to add the suggested language.

Comment 3:

On page 5 of 15, Condition B.5(b) should state: "If actual construction of the emissions units differs from the construction proposed in the application **such that air quality is adversely affected**, the source may not begin operation..."



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Slight variations from the application not related to air quality should not require modification.

Response 3:

The IDEM, OAM agrees that clarification should be made regarding what constitutes changes that could not be included in the affidavit of construction and would require additional review. The following change will be made:

- (b) If actual construction of the emissions units differs from the construction proposed in the application **such that a modification is required by 326 IAC 2-1.1 and 326 IAC 2-7-10.5**, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

Comment 4:

On page 6 of 15, Condition C.2(a) should state: "...prepare and maintain Preventative Maintenance Plans (PMP) within ninety (90) days after ~~issuance of this approval~~ **commercial startup...**"

Often specific equipment is unknown within 90 days after issuance of approval and therefore is impossible to write an effective PMP. In addition air quality cannot be affected until startup. Although a provision exists to extend PMP preparation, in almost all cases sources would be required to request an extension due to unknown equipment, thereby increasing work load for the source and IDEM.

Response 4:

The IDEM, OAM agrees that this language should be clarified for situations where design and construction may not begin within ninety (90) days after issuance of the approval. However, waiting until ninety (90) days after commercial start-up does not fulfill the intent of this requirement. Instead, IDEM, OAM believes the following language provides adequate time to prepare a PMP:

- (a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ~~ninety (90) days after issuance of this approval~~ **the date of initial start-up**, including the following information on each facility:

Comment 5:

On page 8 of 15, Condition C.7 should state: "...The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after ~~receipt of this approval~~ **commercial startup.**"

Impossible in most cases unless the emission unit is installed. For example, if a CEM were required, a source would be required to install the CEM within 90 days of approval on a stack that has yet to be constructed.

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East Chicago, Indiana  
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Response 5:

The IDEM, OAM agrees that the language should be clarified for situations where construction of the equipment has not been completed. However, waiting until ninety (90) days after commercial start-up does not fulfill the intent of this requirement. Instead, IDEM, OAM believes the following language provides adequate time to install any necessary monitoring equipment:

Compliance with applicable requirements shall be documented as required by this approval. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, ~~no more than ninety (90) days after receipt of this approval~~ **within the date of initial start-up**. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Comment 6:

On page 10 of 15, Condition C.10(d) should state: "All recordkeeping requirements not already legally required shall be implemented within ninety (90) days of ~~approval issuance~~ **commercial startup**."

In general, unless recordkeeping of construction related activities are required, there are generally no emission activities until startup and therefore no need to keep records.

Response 6:

The IDEM, OAM agrees that record keeping requirements generally do not begin until the equipment begins operating. However, waiting until 90 days after commercial startup does not fulfill the intent of this requirement. Instead, the language will be changed as follows:

- (d) All record keeping requirements not already legally required shall be implemented ~~within ninety (90) days of approval issuance~~ **upon initial start-up of these facilities**.

Comment 7:

On page 10 of 15, Condition C.11(d) should state: "The first report shall cover the period commencing on the ~~date of issuance of this approval~~ **commercial startup** and ending on the last day of the reporting period."

No need to report zero natural gas usage for space heating during construction. Reporting should start after commercial startup.

Response 7:

The IDEM, OAM agrees that reporting requirements generally do not begin until the equipment begins operating. However, waiting until 90 days after commercial startup does not fulfill the intent of this requirement. Instead, the language will be changed as follows:

- (d) The first report shall cover ~~the period commencing on the date of issuance of this approval~~ **initial start-up** and ending on the last day of the reporting period.

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Comment 8:

On page 12 of 15, Condition D.1.2(b) should state: "...These shutdowns will leave the Permittee with banked offset credits of 28.9 tons NOx from the shutdown of the No. 4 Slabber Pits #19 through 45 and 3.7 tons of VOC from the shutdown of the 76" Hot Strip Mill. **These shutdowns will provide 502.3 tons of NOx and 7.3 tons of VOC.**"

Remaining credits should not be included in the permit. Rather the credits required for offsets should be listed. The primary concern with listing credits remaining is that periodically EPA changes factors. Often times, when banked emissions are based on these factors, the bank must be readjusted to reflect these more accurate factors. Thus the available offsets can go up or down depending upon the change.

Response 8:

The IDEM, OAM does agree that the best available information should be used to determine actual emissions. Therefore, the condition will be changed as requested.

Comment 9:

Inland has found the following errors in the Technical Support Document (TSD):

On page 1 of 16 of the TSD, the first paragraph should state: "...at a maximum capacity of ~~200,000~~ **600,000** tons per year..."

On page 3 of 6 of the TSD, the subsection (b) under the County Attainment Status should state that Ispat Inland is in the CO attainment portion of the county. Emission Offset review does not apply for CO.

On Page 3 of 4 of Appendix A to the TSD, the title block should state: "~~Bituminous Coal~~ **Natural Gas** Combustion"

Response 9:

It is OAM policy to use this TSD addendum to serve as the documentation for any changes made to the proposed approval. Therefore, the TSD will not be amended; but it is noted that the IDEM, OAM agrees that these errors were made. However, for purposes of Appendix A, the change will be made.

Upon further review, OAM has made the following changes (changes are bolded for emphasis):

To clarify that the VOC limit of 1.4 pounds per million cubic feet of natural gas combusted only applies to the radiant tube furnace, Condition D.1.2(c) has been amended as follows on page 12 of 15 of the final permit:

- (c) The volatile organic compound (VOC) emissions from the radiant tube furnace heating and soaking sections ~~and the galvanneal soaking section~~ (Source IDs 251A and 251B) shall not exceed 1.4 pounds per million cubic feet (lb/MMCF). Therefore, the Permittee shall meet the offset requirements of 326 IAC 2-3 (Emission Offset).

Company Name: Ispat Inland, Inc.  
Address City IN Zip: 3210 Whaling St., East Chicago, IN 46312  
CP: 089-10472-00316  
PH ID: 089-00316  
Reviewer: Bryan Sheets  
Date: 1/22/99

A. Strip Dryers, Infra-Red Oven and Boiler

Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	PM	PM10	SO2	NOx	VOC	CO
330.1	330.1						
Emission Factor (lb/MMCF)		7.6	7.6	0.6	100.0	5.5	84.0
Potential Emissions (tons/yr)		1.3	1.3	0.1	16.5	0.908	13.9

B. Space Heating

Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Limited Throughput (MMCF/yr)	PM	PM10	SO2	NOx	VOC	CO
775	665.6	300.0						
Emission Factor (lb/MMCF)			7.6	7.6	0.6	100.0	5.5	84.0
Potential Emissions (tons/yr)			2.5	2.5	0.2	33.3	1.831	28.0
Limited Emissions (tons/yr)			1.1	1.1	0.1	15.0	0.8	12.6

C. Radiant Tube Furnace Heating Section

Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	PM	PM10	SO2	NOx	VOC	CO
876.4	876.4						
Emission Factor (lb/MMCF)		7.6	7.6	0.6	348.0	1.4	84.0
Potential Emissions (tons/yr)		3.3	3.3	0.3	152.5	0.814	36.6

Methodology

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1 and 1.4-2, except NOx and VOC emission factors for Radiant Tube Furnace which are vendor guaranteed.

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr / 1,020 MMBtu/MMCF

Potential Emissions (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF) / 2,000 lbs/ton

Limited Emissions (tons/yr) = Limited Throughput (MMCF/yr) x Emission Factor (lb/MMCF) / 2,000 lbs/ton

Company Name: Ispat Inland, Inc.  
Address City IN Zip: 3210 Whaling St., East Chicago, IN 46312  
CP: 089-10472-00316  
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Reviewer: Bryan Sheets  
Date: 1/22/99

D. Radiant Tube Furnace Soaking Section

Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	PM	PM10	SO2	NOx	VOC	CO
46.4	46.4						
Emission Factor (lb/MMCF)		7.6	7.6	0.6	249.0	1.4	84.0
Potential Emissions (tons/yr)		0.2	0.2	0.0	5.8	0.032	1.9

E. Galvanneal Soaking Section

Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	PM	PM10	SO2	NOx	VOC	CO
55.8	55.8						
Emission Factor (lb/MMCF)		7.6	7.6	0.6	121.0	5.5	84.0
Potential Emissions (tons/yr)		0.2	0.2	0.0	3.4	0.154	2.3

Methodology

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1 and 1.4-2, except NOx and VOC emission factors for Radiant Tube Furnace and Galvanneal Furnace which are vendor guaranteed.

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr / 1,020 MMBtu/MMCF

Potential Emissions (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF) / 2,000 lbs/ton

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion**  
**HAP Calculations**

**Company Name:** Ispat Inland, Inc.  
**Address, City IN Zip:** 3210 Watling Street, East Chicago, IN 46312  
**CP:** '089-10472-00316  
**Pit ID:** '089-00316  
**Reviewer:** Bryan Sheets  
**Date:** 1/22/99

Potential Throughput  
(MMCF/yr)

1074.5

HAP	Emission Factor (lbs/MMCF)	Emissions	
		(lbs/yr)	(tons/yr)
2-Methylnaphthalene	2.40E-05	0.05	0.00
3-Methylchloranthrene	1.80E-06	0.00	0.00
7,12-Dimethylbenz(a)anthracene	1.60E-05	0.03	0.00
Acenaphthene	1.80E-06	0.00	0.00
Acenaphthylene	1.80E-06	0.00	0.00
Anthracene	2.40E-06	0.00	0.00
Arsenic Compounds	2.00E-04	0.39	0.00
Benz(a)anthracene	1.80E-06	0.00	0.00
Benzene	2.10E-03	4.15	0.00
Benzo(a)pyrene	1.20E-06	0.00	0.00
Benzo(b)fluoranthene	1.80E-06	0.00	0.00
Benzo(g,h,i)perylene	1.20E-06	0.00	0.00
Benzo(k)fluoranthene	1.80E-06	0.00	0.00
Beryllium Compounds	1.20E-05	0.02	0.00
Cadmium Compounds	1.10E-03	2.17	0.00
Chromium Compounds	1.40E-03	2.76	0.00
Chrysene	1.80E-06	0.00	0.00
Cobalt Compounds	8.40E-05	0.17	0.00
Dibenzo(a,h)anthracene	1.20E-06	0.00	0.00
Dichlorobenzene	1.20E-03	2.37	0.00
Fluoranthene	3.00E-06	0.01	0.00
Fluorene	2.80E-06	0.01	0.00
Formaldehyde	7.50E-02	148.09	0.07
Hexane	1.80E+00	3554.10	1.78
Indeno(1,2,3-cd)pyrene	1.80E-06	0.00	0.00
Manganese Compounds	3.80E-04	0.75	0.00
Mercury Compounds	2.60E-04	0.51	0.00
Naphthalene	6.10E-04	1.20	0.00
Nickel Compounds	2.10E-03	4.15	0.00
Phenanathrene	1.70E-05	0.03	0.00
Pyrene	5.00E-06	0.01	0.00
Selenium Compounds	2.40E-05	0.05	0.00
Toluene	3.40E-03	6.71	0.00
<b>TOTAL HAPs</b>		<b>3727.77</b>	<b>1.86</b>

**METHODOLOGY**

Potential Emissions (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lbs/MMCF) / 2000 lbs/ton

Emission Factors are from AP 42, Tables 1.4-3 and 1.4-4.

Appendix A: Emissions Calculations  
Allowable Emissions

Company Name: Ispat Inland, Inc.  
Address City IN Zip: 3210 Watling St, East Chicago, IN 46312  
CP: 089-10472-00316  
Pft ID: 089-00316  
Reviewer: Bryan Sheets  
Date: 1/22/99

A. Natural Gas-Fired Boiler

Pursuant to 326 IAC 6-2-4, PM emissions from the boiler shall be limited to an amount determined by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} \quad \text{where } Pt = \text{allowable emission rate (lbs/MMBtu)}$$

$$Q = \text{total source maximum operating capacity (lb/MMBtu)}$$

Since Q for Ispat Inland's source is greater than 10,000 MMBtu/hr, the above equation would result in Pt equaling a number less than 0.1 lbs/MMBtu. However, pursuant to 326 IAC 6-2-4(b), for any source with Q greater than 10,000 MMBtu/hr, the limit shall be 0.1 lbs/MMBtu.

Potential emissions from the boiler are 0.171 lbs/hr and the heat input capacity is 22.95 MMBtu/hr.

$$\frac{0.171 \text{ lbs/hr}}{22.95 \text{ MMBtu/hr}} = 0.007 \text{ lbs/MMBtu} \quad \text{Therefore, the boiler can comply with 326 IAC 6-2-4.}$$

B. Natural Gas-Fired Furnaces

Pursuant to 326 IAC 6-1-2, PM emissions from the natural gas-fired furnaces shall not exceed 0.01 grains per dry standard cubic foot.

The outlet grain loading from the furnaces are:

Facility	Potential Emissions (lbs/hr)	Flow Rate (cfm)	Outlet Grain Loading (gr/dscf)
Strip Dryer #1	0.015	351	0.005
Radiant Tube Heating	0.76	17542	0.005
Radiant Tube Soaking	0.04	929	0.005
Galvanneal Soaking	0.048	1118	0.005
Strip Dryer #2	0.015	351	0.005
Strip Dryer #3	0.015	351	0.005
Phosphate Coating	0.07	1610	0.005
Space Heating	0.578	13332	0.005

$$\text{Outlet Grain Loading (gr/dscf)} = \text{Potential Emissions (lbs/hr)} \times 7000 \text{ gr/lb} / 60 \text{ min/hr} / \text{Flow Rate (cfm)}$$

Assume acf = dscf

Therefore, the natural gas-fired furnaces can comply with 326 IAC 6-1-2.

C. Electric Resistance Welding and Alkali Cleaning System

Pursuant to 326 IAC 6-1-2, PM emissions from the other PM emitting facilities shall not exceed 0.03 grains per dry standard cubic foot.

The electric resistance welding, melting pots and alkali cleaning system constitute the remaining PM emitting facilities. PM emissions from these facilities are considered to be negligible and will be assumed in compliance with 326 IAC 6-2-4.

D. Electrostatic Oiler

To determine the VOC emissions from the application of oil, the following assumption will be made:

The amount of VOC per gallon of oil is approximately 0.01% by weight. This is consistent with other oils used in this type of application. In addition, a conservative estimate of 1 lb of oil used for every ton of steel produced will yield the following emissions:

$$0.13 \text{ gallons oil/ton steel} \times 600,000 \text{ tons steel/yr} \times 0.008 \text{ lb VOC/gal} / 2000 \text{ lbs/ton} = 0.31 \text{ tpy}$$

# Exhibit I

### 3.0 METAL COIL COATING INDUSTRY PROFILE AND PROCESS DESCRIPTION <sup>12</sup>

#### 3.1 GENERAL PROCESS DESCRIPTION

The metal coil surface coating source category includes any facility engaged in the surface coating of metal coil. In this process, a coil or roll of uncoated sheet metal is coated on one or both sides and repackaged as a coil or otherwise handled. Although the physical configuration of the equipment used in coil coating lines varies from one installation to another, the individual operations generally follow a set pattern. The coil coating process begins with a coil (or roll) of bare sheet metal and, in most cases, terminates with a coil of metal with a dried and cured coating on one or both sides. The metal strip is unrolled from the coil at the entry to the coil coating line and first passes through a wet section, where the metal is cleaned and may be given a chemical treatment to inhibit rust and promote adhesion of the coating to the metal surface. In some installations, the wet section may also contain an electrogalvanizing operation in which zinc is applied through an electroplating process to a steel substrate. After the metal strip leaves the wet section, it is squeegeed and air dried and then passes to a coating applicator station.

Coating application stations may be used to apply a variety of coatings. In addition to protective or decorative coatings, adhesives and printed patterns using ink may also be applied. The most prevalent operation includes the application of protective and decorative coatings to one or both sides of the metal strip using rollers. Following the coating application, the strip passes through an oven where the temperature is increased to the desired curing temperature of the coating. The strip is then cooled by a water spray, air spray, or combination of the two. If the line is a tandem line, the first coating application is a prime coat and the metal strip next enters another coating applicator station where a top or finish coating is applied by rollers to one or both



sides of the metal. The strip then enters a second oven for drying and curing of the top or finish coat. This is followed by another cooling or quench station. The finished metal strip is then normally rewound into a coil and packaged for shipment or further processing. In some cases, the coated metal strip may be cut rather than rerolled into a coil. Most metal coil surface coating lines have accumulators at the entry and exit that permit the strip to move continuously through the coating process while a new coil is mounted at the entry or a full coil removed at the exit.

Figure 3-1 is a schematic diagram of a typical, tandem coil coating line.

For existing coil coating lines, processing speed varies considerably, with some lines having processing speeds as high as 1,200 feet per minute<sup>3</sup>. The widths of the metal strip vary from a few inches up to 6 feet, and thickness may vary from about 0.006 inch to more than 0.15 inch. The lower thickness of 0.006 inch has been considered to be the line of distinction between metal coil and foil. However, 5 facilities have been identified that process coiled metal with a thickness both above and below 0.006 inch. Three of these facilities process 5 percent foil on each line, the fourth facility processes less than 25 percent foil on one of 6 coating lines in the facility, and the fifth facility processes 86 percent foil on one of 9 coating lines in the facility. The processing of foil is considered to be part of the paper and other web surface coating source category. Thus, there is some overlap between coil coating processes and foil coating processes within individual coil coating facilities. Unless a facility reported 100% of its substrate(s) as being below 0.006 inch, the facility was considered to be part of the metal coil surface coating source category.

### 3.2 INDUSTRY PROFILE

A total of 110 companies performing metal coil surface coating operations were identified through literature sources and stakeholder contacts. Information collection requests (ICRs) were sent to each of these companies in the summer of 1998. The intent of the survey was to acquire data on HAP use and emission control in metal coil surface coating operations and associated ancillary activities such as storage of HAP-containing materials in tanks, wet section operations, equipment cleaning, and wastewater treatment.

3-3

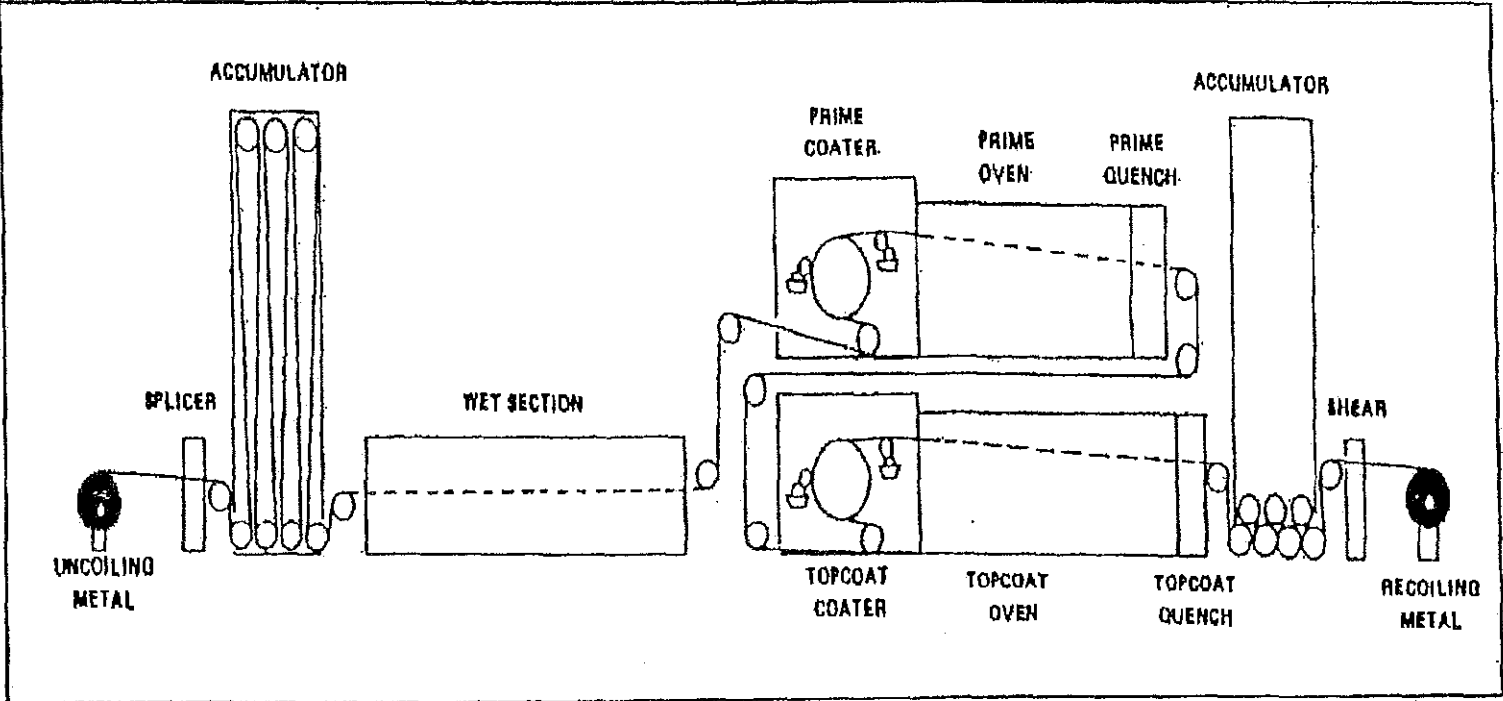


Figure 3-1. Typical Tandem Coil Coating Line

Responses were received from 119 facilities, of which 26 indicated that the facilities are not coil coaters, 2 provided information showing that the facility only coats foil, and two were not in operation in 1997. Therefore, 89 coil coating facilities returned completed questionnaires; 14 companies did not respond to the questionnaire.

The information collected from the metal coil surface coating industry was entered into a database. The metal coil surface coating MACT database (MACT database) contains a total of 82 facilities, excluding 7 facilities that classified the entire ICR response confidential business information (CBI). The MACT database facilities had a total of 125 coating lines reported. Appendix B of this document contains information on plant location, number of lines, type of control device used, and annual HAP emissions.

Major markets for coil coated metal include the transportation industry, building products industry, large appliance industry, can industry, and packaging industry. Other end products include coated tape rules, ventilation systems for walls and roofs, lighting fixtures, office filing cabinets, cookware, and sign stock. The industry has maintained a positive growth rate for a number of years as new end uses for precoated metal have continued to emerge.

Although coil coated metal is used in a wide variety of products, metal coil surface coating is typically not a product specific operation but rather is a distinct process. Many of the other surface coating source categories being regulated under section 112 of the Act are product specific, such as the metal can and large appliances source categories. For the purposes of standard development, the EPA considers any coil coating process, regardless of the end product, as part of the metal coil source category. Product-specific source categories include surface coating operations that are not coil coating processes.

Types of metal processed by the coil coating industry are mainly aluminum, cold rolled steel, cold rolled steel (galvanized on-line), hot-dipped galvanized steel, and galvalum/zincaluminum. Small quantities of other metals including brass are also coated. Coil coated metal is fabricated into end products after it is coated, thus eliminating the need for post-assembly painting. Toll and captive coaters represent the two basic industry divisions. Toll coaters produce metal that is coated in accordance with specifications of their customers. Captive coaters both coat the metal and fabricate it into end products within the same company. Examples of captive coaters are can manufacturers who have dedicated coil coating lines for metal used in the can manufacturing

process, and housing products manufacturers who coat the material for their products using company owned and operated coil coating lines. Some plants perform both toll and captive operations. Data from the MACT database indicate that approximately 40% of the facilities reported being toll coaters, 38% reported being captive coaters, and 22% reported performing both toll and captive coating.

### 3.3 COATINGS

The types of coatings applied in coil coating operations include a wide variety of formulations. Among the more prevalent types are polyesters, acrylics, fluorocarbons, alkyds, vinyls, epoxies, plastisols, and organosols. Table 3-1 lists the coatings commonly used in the industry and gives the approximate range of organic solvent content of each. In addition to these traditional coatings, adhesives, bondable backers, strippable protective coatings, lacquers, teflons, liquid rubber, graphite, kynar, latex, extruded synthetic rubber-based solid resins, and other non-traditional coatings are also used by the industry<sup>5</sup>. The majority of the coatings, estimated at about 85 percent<sup>6</sup>, are organic solvent based and have solvent contents ranging up to 80 percent by volume with most being in the range from 30 to 70 percent. The remaining 15 percent of coatings are mostly of the waterborne type which also contain some organic solvents ranging from about 2 to 15 percent by volume<sup>7</sup>. While waterborne coatings are in use at a number of coil coating facilities, they are not available in formulations that are suitable for all end product applications. The choice of waterborne versus solvent borne coatings usually depends on the end use of the coated metal and the type of metal used. The most prevalent use of waterborne coatings is on aluminum used for siding in the construction industry. Other uses include printing plates, suspended ceiling systems, and body and endstock for food cans.

High-solids coatings in the form of plastisols, organosols, and powder are also used to some extent by the coil coating industry. Because these coatings have a lower organic solvent content, potential organic emissions are lower than from the other, more commonly used coatings. However, these coatings also have limited applicability and are not available in formulations suitable for use on all end products. Typical uses for these coatings are residential siding, drapery hardware, and other products.

Little data have been identified that represent the HAP content of coatings used in the

metal coil surface coating industry. Information provided by one of the coating suppliers<sup>8</sup> for three typical coatings showed HAP contents ranging from about 5 to 28 percent by weight. Reported data from the MACT database indicate that HAP contents for all coatings used in the coil coating industry range from 0 to 95 percent by weight, with an average reported value of approximately 16 percent.

Table 3-1. Typical Coatings Used in Metal Coil Surface Coating

Coatings	Volatile Content (Weight %)
Acrylics	40-45
Adhesives	70-80
Alkyds	50-70
Epoxies	45-70
Fluorocarbons	55-60
Organosols	15-45
Phenolics	50-75
Plastisols	5-30
Polyesters	45-50
Silicone Acrylics & Polyesters	35-60
Urethanes	60-75
Inks	50-65
Solution Vinyls	75-85
Vinyls	60-75

Source: Reference 4.

### 3.4 PROCESS DESCRIPTIONS, CURRENT INDUSTRY PRACTICES, AND EMISSION SOURCES

Although specific steps in a coil coating operation differ between plants, most have a common series of steps that include storage and handling of raw materials and a coating line that includes a wet section and one or more coating operations consisting of a coating application station, a curing oven, and a quench area. Most plants also generate wastewater and have some

type of wastewater treatment system. The following paragraphs provide brief descriptions of the common operations found on coil coating lines and provides general information regarding potential HAP emissions.

#### 3.4.1 Storage and Handling of Coatings and Other Materials

Many of the coatings, solvents, and wet section chemicals are delivered and stored in 55 gallon drums but may also be delivered and stored in totes, which are transportable containers with a capacity generally in the range of from 200 to 500 gallons. Some plants also receive raw materials in bulk by tank trucks or rail cars and store the materials in bulk storage tanks. These tanks may be located inside a building or may be outdoors either above ground or underground. For raw materials delivered and stored in drums or totes, no emissions should occur during normal storage provided that they typically are kept sealed and generally do not leak. Emissions would only occur when the drums or totes are opened.

Where coatings are delivered by tank truck or rail car, working loss emissions occur when the coatings are pumped from the delivery vehicle to bulk storage tanks. Some tanks are vented to the tank trucks while they are being filled, thus making working losses negligible. During storage, daily temperature fluctuations generate breathing loss emissions. Breathing losses would be expected to be low for tanks that are underground or enclosed in controlled temperature environments relative to tanks that are outdoors, above ground and exposed to diurnal temperature cycles. Based on data from the MACT database, emissions from storage tanks account for approximately 2% of nationwide HAP emissions from metal coil surface coating operations.

Before application of the coatings to the coil, the coatings are typically stirred. They may also be thinned with solvent to adjust the viscosity. In some cases, coatings are mixed together. One example is mixing to achieve a particular color. Another example is the blending of excess coatings together to use as a backer. Another coating modification operation, intermixing, involves adding ingredients to perform coating color tinting (with no pigment dispersion). Data from ICR responses indicate that emissions from mixing and thinning account for approximately 3.5% of nationwide HAP emissions from metal coil surface coating operations.

#### 3.4.2 Wet Section Pretreatment

The wet section of a metal coil surface coating line includes cleaning steps that may use

water, caustic cleaners, brushing, or acid treatment. Processes may include spray applications of materials or may include submersion of the metal strip. Specific processes included in the wet section depend on the type of metal substrate, characteristics of the coatings to be applied, and other parameters. The chemical treatments used in the wet section may contain HAP. Data from ICR responses indicate that HAP emissions from wet section operations account for approximately 0.29% of nationwide HAP emissions from metal coil surface coating operations.

### 3.4.3 Coating Application Stations

At the coating application stations, coatings are applied by rollers to one or both surfaces of the metal strip as it passes through the station. Emissions of HAP occur when HAP-containing solvents contained in the applied coatings evaporate. It is estimated that between 0 and 15 percent of the coating solvent evaporates at the coating station<sup>9</sup>. Data from the MACT database indicate an average of approximately 9.1 percent of coating solvent evaporation taking place at the coating station. If HAP-containing cleaning solvents are used, emissions of HAP also occur during cleaning of the paint rollers and other parts of the application station between coating sessions or when a color change is made. Cleaning may be carried out in place using solvent and rags, or portions of the coaters may be removed for cleaning. Data for HAP emissions from parts and equipment cleaning were available for 40 percent of the facilities that returned ICR responses. For these facilities, parts and equipment cleaning HAP emissions account for approximately 4 percent of nationwide HAP emissions from metal coil surface coating operations.

At many plants, the coating application stations are enclosed in rooms. Because air is drawn into the ovens from these rooms, it is generally believed that a large fraction, and in some cases all, of the solvent that evaporates in this area is captured by the ovens. Hoods or "snouts" may be used to increase the fraction of solvent emissions captured by the ovens. Plants may also use smaller coating station enclosures, which require less ventilation air, and are not occupied by workers except when the enclosure is opened for maintenance or inspection. On lines that do not have coating rooms or smaller enclosures, an exhaust hood is frequently installed directly over the roll coaters to exhaust the solvent that evaporates in that area. In these cases, the hoods may be exhausted to the ovens, a control device, or to the atmosphere. Some plants do not use hoods or enclosures around the coating application stations; therefore, the majority of the solvent evaporated at the coating station would be emitted to the atmosphere. Data from the MACT

database indicate that permanent total enclosures, partial enclosures, hoods, floor sweeps, extra ventilation to control devices, walls around coating stations, and oven extensions are used throughout the metal coil coating industry as enclosure and capture methods.

#### 3.4.4 Curing Ovens

After coatings are applied to the surface of the metal strip, the strip enters an oven where heat is applied to evaporate the organic solvent and water contained in the applied coatings. An estimated 85 to 100 percent of the organic solvent content of applied coatings evaporate inside the curing ovens <sup>10</sup>. Data from the MACT database indicate an average of approximately 90 percent of the organic solvent content of applied coatings evaporating inside the curing ovens. Most curing ovens used in coil coating operations are direct fired and use natural gas as fuel. Many ovens are designed to use propane as a backup fuel in case of natural gas curtailments. Ovens heated by fuel oil or electricity are used in some plants, but to a much lesser extent than those heated by natural gas. The heat input to the ovens must be sufficient to evaporate the solvent in the coatings, to bring the metal and coatings up to the design temperature, usually in the range of 375 to 600 °F, to replace the heat lost from the ovens by radiation and conduction, and to heat dilution air to oven operating temperature. Oven ventilating air (or dilution air) is normally the largest single factor in the total oven heat load. Data from the MACT database indicate an average oven exhaust gas temperature of approximately 560 degrees Fahrenheit.

Solvent borne coatings, if uncontrolled, would result in higher organic emissions from the oven than either waterborne coatings or high solids coatings. Emissions of HAP compared to organic emissions depend on the proportion of HAP as compared with non-HAP solvents in the coatings.

#### 3.4.5 Quench Area

When the metal strip exits the curing oven, it is cooled, usually by a water spray, an air spray, or a combination of the two before being repackaged as a coil or passing to another coating station. An estimated 0 to 2 percent of the organic solvent in the applied coatings is released in the quench area <sup>11</sup>. Data from ICR responses indicate an average of approximately 0.6 percent of the organic solvent in the applied coatings is released in the quench area. The quench area is normally an enclosed area adjacent to the exit from the curing oven and a large fraction of the emissions released in this area are estimated to be captured by the oven ventilation system.



However, at some plants, the quench area is vented directly to the atmosphere.

#### **3.4.6 Wastewater Handling and Treatment**

Most plants generate wastewater from wet section operations, quenching operations, or both. Based on data from ICR responses, organic solvents are not typically used in the wet section. Consequently, not much organic solvent gets into plant wastewater. Response data from the ICRs indicate that wastewater handling and treatment operations account for approximately 0.07 percent of nationwide HAP emissions from metal coil coating operations. Coil coating wastewater may contain chromium compounds, but the potential for air emissions of these compounds is small. Wastewater may also be generated by clean up activities at plants that use waterborne coatings.

#### **3.4.7 Baseline Emissions**

Information collection requests were sent to 110 companies performing metal coil coating operations that were identified through literature sources and stakeholder contacts. Responses were received from 119 facilities. Twenty-six of those facilities indicated that they are not coil coaters, 2 provided data showing that the facility coats foil only, and two facilities were not in operation in 1997. Therefore, 89 coil coating facilities returned completed ICRs; 14 companies did not respond to the questionnaire. The surveyed facilities were asked to provide facility HAP emissions from metal coil surface coating operations as well as HAP emissions from specific unit operations associated with metal coil surface coating. Total nationwide HAP emissions from metal coil surface coating operations were calculated to be 2484 tons in 1997 by summing facility HAP emissions reported by these facilities.

### **3.5 REFERENCES**

1. U.S. Environmental Protection Agency. Metal Coil Surface Coatings MACT Docket Number A-97-47 Item Numbers II-D-1 through II-D-113. ICR Responses. Office of Air Quality Planning and Standards. Research Triangle Park, NC. Responses received September 1998-April 1999.
2. U.S. Environmental Protection Agency. Metal Coil Surface Coating Industry-Background Information for Proposed Standards. Office of Air Quality Planning and Standards. Research Triangle Park, NC. EPA-450/3-80-035a. October 1980.
3. Reference 1.

4. Reference 2, p. 3-4 updated with information from Reference 1.
5. Reference 1.
6. Reference 2, p. 3-2.
7. Reference 2, p. 3-2 and 3-5.
8. Letter from Jelf, III, William E., Akzo Nobel Coatings, Inc. to Lacy, Gail, US EPA. September 12, 1997. Data sets for three (3) typical coil coatings.
9. Reference 2, p. 3-7.
10. Reference 9.
11. Reference 9.