

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCE -- RENEWAL

PERMITTEE

American Nickeloid Company  
Attn: Roger Sines  
2900 West Main Street  
Peru, Illinois 61354

Application No.: 83070014

I.D. No.: 099827AAA

Applicant's Designation:

Date Received: September 19, 2007

Subject: Coil Coating Operations

Date Issued: December 5, 2008

Expiration Date: December 5, 2013

Location: 2900 West Main Street, Peru, LaSalle County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of two (2) metal coil coating lines, line B controlled by the afterburner and line F, comprised of two (2) coaters each controlled by the separate afterburner, two (2) dual fuel (natural gas and fuel oil #2) boilers (West (63.7 mmBtu/hr) and East (17 mmBtu/hr)), ten (10) brass plating tanks controlled by a scrubber and a caustic cleaner tank controlled by a scrubber 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 to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/yr for Volatile Organic Material (VOM) and 10 tons/year for a single hazardous air pollutant (HAP), and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from the requirement 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.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits for this location.
- 2a. The East boiler constructed is subject to the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subparts A and Dc. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Pursuant to 40 CFR 60.42c(d), on and after the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in

excess of 215 ng/J (0.50 lb/mmBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that combusts greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under 40 CFR 60.42c(d).

- c. Pursuant to 40 CFR 60.42c(h)(1), for distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 mmBtu/hour), compliance with the emission limits or fuel oil sulfur limits under 40 CFR 60.42c may be determined based on a certification from the fuel supplier, as described under 40 CFR 60.48c(f), as applicable.
- 3a. Coil Coating Line F 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 NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Pursuant to 40 CFR 60.462(a), 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:
  - i. 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); or
  - ii. 0.14 kg VOC/l of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or
  - iii. 10 percent of the VOC's applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or
  - iv. A value between 0.14 (or a 90-percent emission reduction) and 0.28 kg VOC/l of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.
- 4. 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.

- 5a. 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 212.206, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hour of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmBtu).
- d. Pursuant to 35 Ill. Adm. Code 212.321(a), 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).
6. Pursuant to 35 Ill. Adm. Code 216.121, no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 mmBtu/hour) to exceed 200 ppm, corrected to 50 percent excess air.
- 7a. Pursuant to 35 Ill. Adm. Code 214.122(b)(2), no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmBtu/hr), burning liquid fuel exclusively to exceed 0.46 kg of sulfur dioxide per MW-hour of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).
- b. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
- 8a. Pursuant to 35 Ill. Adm. Code 215.204(d), no owner or operator of a coating line shall cause or allow the emission of volatile organic material to exceed the following limitations on coating materials, excluding water and any compounds which are specifically exempted from the definition of volatile organic material pursuant to 35 Ill. Adm. Code Part 215, delivered to the coating applicator:

kg/l

lb/gal

- b. Pursuant to 35 Ill. Adm. Code 215.205, owners or operators of coating lines subject to 35 Ill. Adm. Code 215.204 may comply with 35 Ill. Adm. Code 215.205, rather than with 35 Ill. Adm. Code 215.204. The methods or procedures used to determine emissions of organic material under 35 Ill. Adm. Code 215.205 shall be approved by the Illinois EPA. Emissions of volatile organic material from emission units subject to 35 Ill. Adm. Code 215.204, are allowable, notwithstanding the limitations in 35 Ill. Adm. Code 215.204, if:
  - i. For all other emission units subject to 35 Ill. Adm. Code 215.204, the emissions are controlled by an afterburner system which provides:
    - A. 81% reduction in the overall emissions of volatile organic material from the coating line, and
    - B. Oxidation to carbon dioxide and water of 90% of the nonmethane volatile organic material (measured at total combustible carbon) which enters the afterburner.
  - ii. The system used to control such emissions is demonstrated to have control efficiency equivalent to or greater than that provided under the applicable provision of 35 Ill. Adm. Code 215.204 or 35 Ill. Adm. Code 215.205(a) or (b).
- 9a. Pursuant to 35 Ill. Adm. Code 215.206(b), the limitations of 35 Ill. Adm. Code 215 Subpart F shall not apply to touch-up and repair coatings used by a coating source described in 35 Ill. Adm. Code 215.204(b), (d), (f), (g), (i), and (j); provided that the source-wide volume of such coatings does not exceed 0.95 l (1 quart) per eight-hour period or exceed 209 l/yr (55 gal/yr) for any rolling twelve-month period. Recordkeeping and reporting for touch-up and repair coatings shall be consistent with 35 Ill. Adm. Code 215.206(c).
- b. Pursuant to 35 Ill. Adm. Code 215.209, no coating line subject to the limitations of 35 Ill. Adm. Code 215.204 is required to meet 35 Ill. Adm. Code 215.301 or 215.302 after the date by which the coating line is required to meet 35 Ill. Adm. Code 215.204.
- 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 afterburners and scrubber such that the afterburners and scrubber is kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
  - c. The afterburners shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.

- d. The afterburners' combustion chamber shall be preheated to at least the manufacturer's recommended temperature but no less than the temperature at which compliance was demonstrated in the most recent compliance test, or 1400°F in the absence of a compliance test. This temperature shall be maintained during operation.
- e. The boilers shall only be operated with natural gas or distillate fuel oil as the fuel(s). The use of any other fuel in the boilers requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- f. The Permittee shall not keep, store or use distillate fuel oil (Grades No. 1 and 2) at this source with a sulfur content greater than the larger of the following two values:
  - i. 0.28 weight percent, or
  - ii. The wt. percent given by the formula: Maximum wt. percent sulfur = (0.00015) x (Gross heating value of oil, Btu/lb).
- g. Organic liquid by-products or waste materials shall not be used in any emission unit at this source without written approval from the Illinois EPA.
- h. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- 11a. Operations and VOM emissions from coil coating operations shall not exceed the following limits:

Unit of Equipment	VOM Usage		Efficiency (Wt. %)	VOM Emissions	
	(ton/mo)	(ton/yr)		(ton/mo)	(ton/yr)
Line B	20	220	90	2.0	22.0
Line F	60	620	90	6.0	62.0

These limits are based on the actual emissions determined from the maximum production capacity and control efficiency determined by the most recent stack tests data.

- b. Operation and emissions of the fuel combustion equipment (combined) shall not exceed the following limits:
  - i. Natural Gas Usage: 60 mmscf/month, 580 mmscf/year
  - ii. Emissions from the combustion of Natural Gas:

Pollutant	Emission Factor (lb/mmscf)	Emissions	
		(ton/mo)	(ton/yr)
Carbon Monoxide	84	2.5	24.4
Nitrogen Oxides (NO <sub>x</sub> )	100	3.0	29.0
Particulate Matter (PM)	7.6	0.2	2.2
Sulfur Dioxide (SO <sub>2</sub> )	0.6	0.02	0.2

Volatile Organic Materials (VOM)	5.5	0.2	1.6
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These limits are based on the maximum fuel usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- iii. No. 2 Fuel Oil Usage: 100,000 gal/mo, 1,000,000 gal/yr
- iv. Emissions from the combustion of No. 2 Fuel Oil:

Pollutant	Emission Factor (lb/10 <sup>3</sup> gal)	Emissions	
		(ton/mo)	(ton/yr)
Carbon Monoxide	5	0.3	2.5
Nitrogen Oxides (NO <sub>x</sub> )	20	1.0	10.0
Particulate Matter (PM)	2	0.1	1.0
Sulfur Dioxide (SO <sub>2</sub> )	42	2.1	21.0
Volatile Organic Materials (VOM)	0.64	0.02	0.2

These limits are based on the maximum fuel usage, a sulfur content of 0.3 weight percent, and standard emission factors (Tables 1.3-1 and 1.3-3, AP-42, Fifth Edition, Volume I, Supplement E, September 1998).

- c. This permit is issued based on negligible emission of the particulate matter from the brass plating tanks and caustic cleaning tank. For this purpose, emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
- 12. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from the source shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 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 requirement to obtain a CAAPP permit from the Illinois EPA.
- 13. 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).
- 14a. 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 (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(d), the owner or operator of an affected facility shall provide the Illinois EPA or USEPA at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Illinois EPA or USEPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Illinois EPA or USEPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Illinois EPA or USEPA by mutual agreement.
- e. 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.
  - f. Pursuant to 40 CFR 60.8(f), unless otherwise specified in the applicable subpart of 40 CFR Part 60, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard under 40 CFR Part 60. For the purpose of determining compliance with an applicable standard under 40 CFR Part 60, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Illinois EPA's or USEPA's approval, be determined using the arithmetic mean of the results of the two other runs.
- 15a. Pursuant to 40 CFR 60.44c(g), for oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under 40 CFR 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under 40 CFR 60.46c(d)(2).
- b Pursuant to 40 CFR 60.44c(g), for oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under 40 CFR 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under 40 CFR 60.46c(d)(2).
  - c. Pursuant to 40 CFR 60.44c(h), for affected facilities subject to 40 CFR 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under 40 CFR 60.48c(f), as applicable.
- 16a. Pursuant to 40 CFR 60.462(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 60.462.

- b. Pursuant to 40 CFR 60.462(c), 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.
  - i. An owner or operator shall use the following procedures for each affected facility that continuously uses a capture system and a control device that destroys VOC's (e.g., incinerator) to comply with the emission limit specified under 40 CFR 60.462(a)(2) or (3).
    - A. Determine the overall reduction efficiency (R) for the capture system and control device. For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed in 40 CFR 60.462(c)(2)(i)(A), (B), and (C). In subsequent months, the owner or operator may use the most recently determined overall reduction efficiency (R) for the performance test, providing control device and capture system operating conditions have not changed. The procedure in 40 CFR 60.462(c)(2)(i)(A), (B), and (C), shall be repeated when directed by the Illinois EPA or USEPA or when the owner or operator elects to operate the control device or capture system at conditions different from the initial performance test.
      - I. Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the Equation 5 in 40 CFR 60.463(c)(2)(i)(a).
      - II. Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by Equation 6 in 40 CFR 60.463(c)(2)(i)(b). The owner or operator of the affected facility shall construct the VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in 40 CFR 60.466. The owner or operator of the affected facility shall construct a temporary enclosure around the coating applicator and flashoff area during the performance test for the purpose of evaluating the capture efficiency of the system. The enclosure must be maintained at a negative pressure to ensure that all VOC emissions are measurable. If a permanent enclosure exists in the affected facility prior to the performance test and the Illinois EPA or USEPA is satisfied that the enclosure is adequately containing VOC emissions, no additional enclosure is required for the performance test.

- III. Determine overall reduction efficiency (R) using Equation 7 in 40 CFR 60.463(c)(2)(i)(c).
- B. Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in 40 CFR 60.462(c)(1)(i)(A), (B), and (C).
- C. Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by Equation 8 in 40 CFR 60.463(c)(2)(iii).
- D. If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.
- ii. An owner or operator shall use the following procedures for each affected facility that intermittently uses a capture system and a control device to comply with the emission limit specified in 40 CFR 60.462(a)(4).
- A. Calculate the total volume of coating solids applied without the control device in operation ( $L_{sn}$ ) during each calendar month for each affected facility using Equation 11 in 40 CFR 60.463(c)(4)(i).
- B. Calculate the total volume of coating solids applied with the control device in operation ( $L_{sc}$ ) during each calendar month for each affected facility using Equation 12 in 40 CFR 60.463(c)(4)(ii).
- C. Calculate the mass of VOC's used without the control device in operation ( $M_{on} + M_{dn}$ ) during each calendar month for each affected facility using Equation 13 in 40 CFR 60.463(c)(4)(iii).
- D. Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied without the control device in operation ( $G_n$ ) during each calendar month for each affected facility using Equation 14 in 40 CFR 60.463(c)(4)(iv).
- E. Calculate the mass of VOC's used with the control device in operation ( $M_{oc} + M_{dc}$ ) during each calendar month for each affected facility using Equation 15 in 40 CFR 60.463(c)(4)(v).
- F. Calculate the volume-weighted average of the total mass of VOC's used per unit volume of coating solids applied with the control device in operation ( $G_c$ ) during each calendar month for each affected facility using Equation 16 in 40 CFR 60.463(c)(4)(vi).

- G. Determine the overall reduction efficiency (R) for the capture system and control device using the procedures in 40 CFR 60.462(c)(2)(i)(A), (B), and (C) or 40 CFR 60.462(c)(3)(i), (ii), and (iii), whichever is applicable.
  - H. Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month for each affected facility using Equation 17 in 40 CFR 60.463(c)(4)(viii).
  - I. Calculate the emission limit(s) for each calendar month for each affected facility using Equation 18 in 40 CFR 60.463(c)(4)(ix).
  - J. If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to the calculated emission limit (S) for the calendar month, the affected facility is in compliance. Each monthly calculation is a performance test.
- 17a. Pursuant to 40 CFR 60.466(a), 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:
- i. 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, Reference Method 24 shall be the 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;
  - ii. Method 25, both for measuring the VOC concentration in each gas stream entering and leaving the control device on each stack equipped with an emission control device and for measuring the VOC concentration in each gas stream emitted directly to the atmosphere;
  - iii. Method 1 for sample and velocity traverses;
  - iv. Method 2 for velocity and volumetric flow rate;
  - v. Method 3 for gas analysis; and
  - vi. Method 4 for stack gas moisture.
- 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.
- c. Pursuant to 40 CFR 60.466(c), for Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dscm (0.11 dscf); however, shorter

sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Illinois EPA or USEPA.

- d. Pursuant to 40 CFR 60.466(d), the Illinois EPA or USEPA will approve testing of representative stacks on a case-by- case basis if the owner or operator can demonstrate to the satisfaction of the Illinois EPA or USEPA that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks.
- 18a. 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 19 and 20 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 19a. Pursuant to 35 Ill. Adm. Code 212.107, for both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR Part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. 35 Ill. Adm. Code 212 Subpart A shall not apply to 35 Ill. Adm. Code 212.301.
- b. Pursuant to 35 Ill. Adm. Code 212.109, except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data

reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.

- c. Pursuant to 35 Ill. Adm. Code 212.110(a), measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 5, 5A, 5D, or 5E.
  - d. Pursuant to 35 Ill. Adm. Code 212.110(b), the volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4.
  - e. 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.
- 20a. Pursuant to 35 Ill. Adm. Code 215.208(a), the VOM content of coatings shall be determined by Method 24, 40 CFR Part 60, Appendix A, except for glues and adhesive coatings, two component reactive coatings forming volatile reaction products, coatings requiring energy other than heat to initiate curing, and coatings requiring high temperature catalysis for curing, providing the person proposing testing of the material submits to the Illinois EPA proof that the Method 24 results would not be representative and proof that a proposed alternative test method gives representative, accurate test results. For printing inks, the volatile organic material content shall be determined by Method 24A, 40 CFR Part 60, Appendix A. Any alternate test method must be approved by the Illinois EPA which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Illinois EPA shall approve the proposed alternative.
- b. Pursuant to 35 Ill. Adm. Code 215.208(b), transfer efficiency shall be determined by a method, procedure or standard approved by the USEPA, under the applicable new source performance standard or until such time as USEPA has approved and published such a method, procedure or standard, by any appropriate method, procedure or standard approved by the Illinois EPA.

21. Pursuant to 40 CFR 60.46c(e), the monitoring requirements of 40 CFR 60.46c(a) and (d) shall not apply to affected facilities subject to 40 CFR 60.42c(h)(1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, as described under 40 CFR 60.48c(f), as applicable.
- 22a. 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.
  - b. Pursuant to 40 CFR 60.464(b), where compliance with the limit specified in 40 CFR 60.462(a)(4) is achieved through the intermittent use of emission control devices, the owner or operator shall compute and record for each affected facility the average VOC content of coatings applied during each calendar month according to the equations provided in 40 CFR 60.463.
  - c. Pursuant to 40 CFR 60.464(c), if thermal incineration is used, each owner or operator subject to the provisions of 40 CFR 60 Subpart TT shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with 40 CFR 60.462(a)(2), (3), or (4). This device shall have an accuracy of  $\pm 2.5^{\circ}\text{C}$  or  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius, whichever is greater. Each owner or operator shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to control emissions from an affected facility remains more than  $28^{\circ}\text{C}$  ( $50^{\circ}\text{F}$ ) below the temperature at which compliance with 40 CFR 60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by 40 CFR 60.8. The records required by 40 CFR 60.7 shall identify each such occurrence and its duration. If catalytic incineration is used, the owner or operator shall install, calibrate, operate, and maintain a device to monitor and record continuously the gas temperature both upstream and downstream of the incinerator catalyst bed. This device shall have an accuracy of  $\pm 2.5^{\circ}\text{C}$  or  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius, whichever is greater. During coating operations, the owner or operator shall record all periods in excess of 3 hours where the average difference between the temperature upstream and downstream of the incinerator catalyst bed remains below 80 percent of the temperature difference at which compliance was demonstrated during the most recent measurement of incinerator efficiency or when the inlet temperature falls more than  $28^{\circ}\text{C}$  ( $50^{\circ}\text{F}$ ) below the temperature at which compliance with 40 CFR 60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by 40 CFR 60.8. The records required by 40 CFR 60.7 shall identify each such occurrence and its duration.

- 23a. 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.
- 24a. Pursuant to 40 CFR 60.48c(e), the owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under 40 CFR 60.42c shall keep records including the following information, as applicable.
    - i. Identification of the F factor used in calculations, method of determination, and type of fuel combusted.
    - ii. If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under 40 CFR 60.48c(f)(1), (2), (3), or (4), as applicable.
  - b. Pursuant to 40 CFR 60.48c(f)(1), fuel supplier certification shall include the following information for distillate oil:
    - i. The name of the oil supplier;
    - ii. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c; and
    - iii. The sulfur content of the oil.
  - c.
    - i. Pursuant to 40 CFR 60.48c(g)(1), except as provided under 40 CFR 60.48c(g)(2) and (g)(3), the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each operating day.
    - ii. Pursuant to 40 CFR 60.48c(g)(2), as an alternative to meeting the requirements of 40 CFR 60.48c(g)(1), the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in 40 CFR 60.48c(f) to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

- iii. Pursuant to 40 CFR 60.48c(g)(2), as an alternative to meeting the requirements of 40 CFR 60.48c(g)(1), the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to 40 CFR 60 Subpart Dc) at that property are natural gas, wood, distillate oil meeting the most current requirements in 40 CFR 60.42C to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.
  - d. Pursuant to 40 CFR 60.48c(i), all records required under 40 CFR 60.48 shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.
- 25a. Pursuant to 40 CFR 60.465(c), following the initial performance test, the owner or operator of an affected facility shall identify and record 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.
- b. 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.
26. 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.

27. 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 215.206(c), the owner or operator of a coating line or a group of coating lines using touch-up and repair coatings that are exempted from the limitations of 35 Ill. Adm. Code 215.204(b), (d), (f), (g), (i), and (j) because of the provisions of 35 Ill. Adm. Code 215.206(b) shall:
    - i. Collect and record the name, identification number, and volume of each touch-up and repair coating, as applied on each coating line, per eight-hour period and per month;
    - ii. Perform calculations on a daily basis, and maintain at the source, records of such calculations of the combined volume of touch-up and repair coatings used source-wide for each eight-hour period;
    - iii. Perform calculations on a monthly basis, and maintain at the source, records of such calculations of the combined volume of touch-up and repair coatings used source-wide for the month and the rolling twelve-month period;
    - iv. Prepare and maintain at the source an annual summary of the information required to be compiled pursuant to 35 Ill. Adm. Code 215.206(b) on or before January 31 of the following year;
    - v. Maintain at the source for a minimum of three years all records required to be kept under this 35 Ill. Adm. Code 215.206(c) and make such records available to the Agency upon request; and
- 28a. The Permittee shall maintain monthly 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 afterburners and scrubber:
    - A. Records for periodic inspection of the afterburners and scrubber with date, individual performing the inspection, and nature of inspection;

- B. A log of operating time for the capture system, afterburner, monitoring devices, and the coating lines;
  - C. A maintenance log for the capture system, afterburner, and monitoring devices detailing all routine and non-routine maintenance performed including dates and duration of any outages; and
  - D. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- ii. Name and identification number, density (lb/gal), and VOM and HAP content (% by weight) of each coating and VOM-containing material used on each coating line;
  - iii. Usage of each coating and VOM-containing material on each coating line (tons/month and tons/year);
  - iv. Afterburner monitoring data;
  - v. Natural gas usage (mmscf/month and mmscf/year);
  - vi. Distillate fuel oil usage (gal/month and gal/year); and
  - vii. Monthly and annual emissions of CO, NO<sub>x</sub>, PM, SO<sub>2</sub>, VOM and HAP with supporting calculations (tons/month and 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) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
29. If there is an exceedance of or 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 exceedance or deviation and efforts to reduce emissions and future occurrences.
- 30a. Pursuant to 40 CFR 60.48c(d), the owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under 40 CFR 60.42c shall submit reports to the Illinois EPA or USEPA.
- b. Pursuant to 40 CFR 60.48c(e), the owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under 40 CFR 60.42c shall submit reports

as required under 40 CFR 60.48c(d), including the following information, as applicable.

- i. Calendar dates covered in the reporting period.
  - ii. Identification of the F factor used in calculations, method of determination, and type of fuel combusted.
  - iii. If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under 40 CFR 60.48c(f)(1), (2), (3), or (4), as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.
- c. Pursuant to 40 CFR 60.48c(j), the reporting period for the reports required under this 40 CFR 60 Subpart Dc is each six-month period. All reports shall be submitted to the Illinois EPA or USEPA and shall be postmarked by the 30th day following the end of the reporting period.
- 31a. Pursuant to 40 CFR 60.465(c), following the initial performance test, the owner or operator of an affected facility shall identify 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.
- b. Pursuant to 40 CFR 60.465(d), the owner or operator of each affected facility shall also submit reports at the frequency specified in 40 CFR 60.7(c) when the incinerator temperature drops as defined under 40 CFR 60.464(c). If no such periods occur, the owner or operator shall state this in the report.
32. Pursuant to 35 Ill. Adm. Code 215.206(c)(6), the owner or operator of a coating line or a group of coating lines using touch-up and repair coatings that are exempted from the limitations of 35 Ill. Adm. Code 215.204(b), (d), (f), (g), (i), and (j) because of the provisions of 35 Ill. Adm. Code 215.206(b) shall notify the Illinois EPA in writing if the use of touch-up and repair coatings at the source ever exceeds a volume of 0.95 l (1 quart) per eight-hour period or exceeds 209 l/year (55 gallons/year) for any rolling twelve-month period within 30 days after any such exceedence. Such notification shall include a copy of any records of such exceedence.
33. 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  
5415 North University  
Peoria, Illinois 61614

It should be noted that fuel oil storage tank, machining and wood work operations are exempt from state permit requirements pursuant to 35 Ill. Adm. Code 201.146 (n) and (aa), respectively.

If you have any questions on this, please call Randy Solomon at 217/782-2113.

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

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

ECB:RBS:jws

cc: Illinois EPA, FOS Region 2  
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Coil Coating 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. This is assumption of 100% evaporation rate of all VOM containing materials and minimum actual control efficiency. The resulting maximum emissions are well below the levels (e.g., 100 tons/year for volatile organic materials (VOM), 10 tons/year for a single hazardous air pollutant (HAP), and 25 ton/year for any combination of such HAPs) 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 material is handled, 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)						Single <u>HAP</u>	Total <u>HAPs</u>
	<u>CO</u>	<u>NO<sub>x</sub></u>	<u>PM</u>	<u>SO<sub>2</sub></u>	<u>VOM</u>			
Coil Coating Line B					22.0			
Coil Coating Line F					62.0			
Combustion of Natural Gas	24.4	29.0	2.2	0.2	1.6			
Combustion of No. 2 Fuel Oil	2.5	10.0	1.0	21.0	0.2			
Brass Plating Tanks & Caustic Cleaning Tank	--	--	0.88	--	--	--	--	
Totals	26.9	39.0	4.08	21.2	85.8	9.0	22.5	

RBS:jws