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If you have any questions concerning this permit, please contact Dan Punzak at 217/782-2113.

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DES:DGP:jar

cc: Illinois EPA, FOS, Region 1  
USEPA

<sup>1</sup> This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit.

<sup>2</sup> Except as provided in condition 8.7 of this permit.



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1.0 SOURCE IDENTIFICATION

1.1 Source

Edsal Manufacturing Company, Inc.  
4400 South Packers  
Chicago, Illinois 60609  
773/254-0600

I.D. No.: 031600BPK  
Standard Industrial Classification: 2542, Furniture and Fixtures

1.2 Owner/Parent Company

Edsal Manufacturing Company, Inc.  
4400 South Packers  
Chicago, Illinois 60609

1.3 Operator

Edsal Manufacturing Company, Inc.  
4400 South Packers  
Chicago, Illinois 60609

Bruce R. Murray  
773/254-0600 Ext. 261

1.4 General Source Description

Edsal Manufacturing Company, Inc. is located at 4400 South Packers and 4345 South Packers in Chicago. The source manufactures residential and commercial steel shelving and commercial metal shop furniture. Raw material is purchased in the form of sheet metal cut to size, or coil stock that is cut at the source. Every item is sent to one of six coating lines where they are washed with a rust-preventative phosphate cleaning solution, coated using compliant coating and cured. After curing, the product is packaged and shipped to the source's warehouse to await shipment.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollution Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27717
ATU	Allotment Trading Unit
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CFR	Code of Federal Regulations
CO	Carbon Monoxide
ERMS	Emission Reduction Market System
°F	degrees Fahrenheit
gal	gallon
hr	hour
HAP	Hazardous Air Pollutants
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
in.	inch
kg	kilogram
l	liter
LAER	Lowest Achievable Emission Rate
lb	pound
Ls	The volume of coating solids consumed (liters)
MACT	Maximum Achievable Control Technology
Mft <sup>3</sup>	Million cubic feet
Mg	Metric Tonnes or Megagrams
mm	millimeter
mmBtu	Million Btus
mo	month
MW	Megawatts
NESHAP	National Emission Standard for Hazardous Air Pollutants
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
SO <sub>2</sub>	Sulfur Dioxide
T	Ton

T1	Title I - identifies Title I conditions that have been carried over from an existing construction permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing construction permit and subsequently revised in this permit
TOC	Total Organic Compounds
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
VOM	Volatile Organic Material
Wt	Weight
yr	year

### 3.0 INSIGNIFICANT ACTIVITIES

#### 3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

None

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

Mig Welding

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

None

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

#### 3.2 Addition of Insignificant Activities

- 3.2.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

- 3.2.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

- 3.2.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
BCO-1	Bayco Model BB 402 Heat Cleaning Oven (Heat Cleaning Oven)	March, 1990	Afterburner
ShpPCS	Nordson Model Excel 2003 Powder Coating System with Internal Filters	August, 2001	None
ShpLDT	Shop Line Dip Tank	January, 1973	None
ShpLW	Shop Line Washer	July, 1969	None
ShpLCO	Eclipse Model 280AH Natural Gas-Fired Curing Oven (Shop Line Curing Oven)	July, 1969	None
CLPCB	Nordson Model Excel 2003 Powder Coating Booth (Cabinet Line Powder Coating Booth)	September, 1996	Dry Filter System
CLTUB	2 Cabinet Line Touch-Up Booths	January, 1972	Dry Filters
CLW	Cabinet Line Washer	September, 1996	None
CLCO	Cabinet Line Curing Oven	September, 1996	None
HEQLDT	Home E-Quip Line Dip Tank	July, 1969	None
HEQLW	Home E-Quip Line Washer	July, 1969	None
HEQLCO	Eclipse Model 120 AH Curing Oven (Home E-Quip Line Curing Oven)	July, 1969	None
PLDT	Post Line Dip Tank	July, 1969	None
PLW	Post Line Washer	July, 1969	None
PLCO	Eclipse Model 160 AH Natural Gas-Fired Curing Oven (Post Line Curing Oven)	July, 1969	None
ShflLDT	Shelf Line Dip Tank	July, 1969	None
ShflLW	Shelf Line Washer	July, 1969	None
ShflLCO	Eclipse Natural Gas-Fired Curing Oven (Shelf Line Curing Oven)	July, 1969	None
PCSPB	Binks Powder Coating Booth (Powder Coating System Powder Booth)	June, 1993	Dry Filter System
PCSW	Precision Quincy Three Stage Washer (Powder Coating System Washer)	June, 1993	None
PCSCO	Precision Quincy Natural Gas-Fired Curing Oven (Powder Coating System Curing Oven)	June, 1993	None

BO-1	Boiler BO-1 (0.84 mmBtu/hr)	July, 1969	None
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Emission Unit	Description	Date Constructed	Emission Control Equipment
BASH	80 Natural Gas Fired Space Heaters (Building A Space Heaters) (24.680 mmBtu/hr, Combined)	July, 1969	None
BBPH	5 Natural Gas Fired Space Heaters (Building B Plant Heaters) (9.542 mmBtu/hr, Combined)	January, 1993	None
Fugitive PM Emissions	Paved Parking Area	--	None

## 5.0 OVERALL SOURCE CONDITIONS

### 5.1 Source Description

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM emissions.
- 5.1.2 This permit is issued based on the source not being a major source of HAPs.

### 5.2 Applicable Regulations

- 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
- 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

- a. 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 overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

- b. The emission of smoke or other particulate matter from any emission unit shall not exceed an opacity of greater than 30 percent, except that an opacity of greater than 30 percent but less than 60 percent shall be allowed 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 meter (1000 feet) radius from the center point of any other such emission unit owned or operated by the Permittee, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period, pursuant to 35 IAC 212.123 and 212.124.

#### 5.2.3 Operating Program for Particulate Matter

- a. This source shall be operated under the provisions of an operating program prepared by the Permittee and

submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].

- b. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].
- c. All normal traffic pattern roads and parking facilities located at this source 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 [35 IAC 212.306].
- d. All unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods [35 IAC 212.307].

5.2.4 The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

### 5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Nitrogen Oxides (NO <sub>x</sub> )	20.80
Particulate Matter (PM)	2.95
Sulfur Dioxide (SO <sub>2</sub> )	0.17
Volatile Organic Material (VOM)	99.88
HAP, not included in VOM or PM	--
TOTAL	123.80

5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

## 5.6 General Recordkeeping Requirements

### 5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

### 5.6.2 Records of Fugitive Emissions from Paved Parking Areas

- a. The Permittee shall maintain a record of the maximum aggregate annual emissions of fugitive PM (i.e., road dust) estimated based on the applicable emission factors and formulas specified by Condition 5.9.1, with supporting calculations, so as to demonstrate compliance with the limits in Condition 5.5.
- b. This record shall be updated upon construction of additional paved parking areas or other permanent change to the source, that alters the maximum aggregate emissions of PM.

### 5.6.3 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

## 5.7 General Reporting Requirements

### 5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with the permit

requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Fugitive Emissions from Paved Parking Areas

For the purpose of estimating fugitive PM emissions from the paved parking areas at the source, the emission factors and formulas in Sections 13.2.1 of AP-42, Volume I, Fifth Edition, January, 1995 are acceptable.

## 6.0 EMISSION REDUCTION MARKET SYSTEM (ERMS)

### 6.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Once the ERMS begins, participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set during initial issuance of the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source shall have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

### 6.2 Applicability

This source is considered a "participating source" for purposes of the ERMS, 35 IAC Part 205.

### 6.3 Obligation to Hold Allotment Trading Units (ATUs)

- a. Pursuant to 35 IAC 205.150(c)(1) and 35 IAC 205.720, and as further addressed by Condition 6.8, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than the ATU equivalent of its VOM emissions during the preceding seasonal allotment period (May 1 - September 30), not including VOM emissions from the following, or the source shall be subject to "emissions excursion compensation," as described in Condition 6.5.
  - i. VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;
  - ii. Excess VOM emissions associated with startup, malfunction, or breakdown of an emission unit as authorized in Section 7.0 of this permit, in accordance with 35 IAC 205.225;
  - iii. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3);
  - iv. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 IAC 205.750; and
  - v. VOM emissions from certain new and modified emission units as addressed by Condition 6.8(b), if applicable, in accordance with 35 IAC 205.320(f).
- b. Notwithstanding the above condition, in accordance with 35 IAC 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 IAC Part 203, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions in Section 7.0 of this permit.

### 6.4 Market Transaction

- a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior to conducting any market transactions, as specified at 35 IAC 205.610(a).

- b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 IAC 205.610(b).
- c. The source shall have at least one account officer designated for its Transaction Account, pursuant to 35 IAC 205.620(a).
- d. Any transfer of ATUs to or from the source from another source or general participant must be authorized by a qualified Account Officer designated by the source and approved by the Illinois EPA, in accordance with 35 IAC 205.620, and the transfer must be submitted to the Illinois EPA for entry into the Transaction Account database.

#### 6.5 Emission Excursion Compensation

Pursuant to 35 IAC 205.720, if the source fails to hold ATUs in accordance with Condition 6.3, it shall provide emissions excursion compensation in accordance with the following:

- a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by the notice, as follows:
  - i. The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or
  - ii. If the source had an emissions excursion for the seasonal allotment period immediately before the period for the present emissions excursion, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.
- b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.
- c. Pursuant to 35 IAC 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the owner or operator may request that ATUs equivalent to the amount specified be deducted from the source's next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

## 6.6 Quantification of Seasonal VOM Emissions

- a. The methods and procedures specified in Sections 5 and 7 of this permit for determining VOM emissions and compliance with VOM emission limitations shall be used for determining seasonal VOM emissions for purposes of the ERMS, with the following exceptions [35 IAC 205.315(b)]:

No exceptions

- b. The Permittee shall report emergency conditions at the source to the Illinois EPA, in accordance with 35 IAC 205.750, if the Permittee intends to deduct VOM emissions in excess of the technology-based emission rates normally achieved that are attributable to the emergency from the source's seasonal VOM emissions for purposes of the ERMS. These reports shall include the information specified by 35 IAC 205.750(a), and shall be submitted in accordance with the following:
  - i. An initial emergency conditions report within two days after the time when such excess emissions occurred due to the emergency; and
  - ii. A final emergency conditions report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

## 6.7 Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emissions Report, seasonal VOM emissions information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 IAC 205.300]:
  - i. Actual seasonal emissions of VOM from the source;
  - ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;
  - iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 IAC 205.337;
  - iv. If a source has experienced an emergency, as provided in 35 IAC 205.750, the report shall reference the

associated emergency conditions report that has been approved by the Illinois EPA;

- v. If a source's baseline emissions have been adjusted due to a Variance, Consent Order, or CAAPP permit Compliance Schedule, as provided for in 35 IAC 205.320(e)(3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3); and
  - vi. If a source is operating a new or modified emission unit for which three years of operational data is not yet available, as specified in 35 IAC 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.
- b. This report shall be submitted by October 31 of each year, for the preceding seasonal allotment period.

#### 6.8 Allotment of ATUs to the Source

- a.
  - i. The allotment of ATUs to this source is 632 ATUs per seasonal allotment period.
  - ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 71.81 tons per season.
  - iii. The source's allotment reflects 88% of the baseline emissions (12% reduction), except for the VOM emissions from specific emission units excluded from such reduction, pursuant to 35 IAC 205.405, including units complying with MACT or using BAT, as identified in Condition 6.11 of this permit.
  - iv. ATUs will be issued to the source's Transaction Account by the Illinois EPA annually. These ATUs will be valid for the seasonal allotment period following issuance and, if not retired in this season, the next seasonal allotment period.
  - v. Condition 6.3(a) becomes effective beginning in the seasonal allotment period following the initial issuance of ATUs by the Illinois EPA into the Transaction Account for the source.

b. Contingent Allotments for New or Modified Emission Units

Not applicable.

c. Notwithstanding the above, part or all of the above ATUs will not be issued to the source in circumstances as set forth in 35 IAC Part 205, including:

i. Transfer of ATUs by the source to another participant or the ACMA, in accordance with 35 IAC 205.630;

ii. Deduction of ATUs as a consequence of emissions excursion compensation, in accordance with 35 IAC 205.720; and

iii. Transfer of ATUs to the ACMA, as a consequence of shutdown of the source, in accordance with 35 IAC 205.410.

6.9 Recordkeeping for ERMS

The Permittee shall maintain copies of the following documents as its Compliance Master File for purposes of the ERMS [35 IAC 205.700(a)]:

a. Seasonal component of the Annual Emissions Report;

b. Information on actual VOM emissions, as specified in detail in Sections 5 and 7 of this permit and Condition 6.6(a); and

c. Any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

6.10 Federal Enforceability

Section 6 becomes federally enforceable upon approval of the ERMS by USEPA as part of Illinois' State Implementation Plan.

6.11 Exclusions from Further Reductions

a. VOM emissions from the following emission units shall be excluded from the VOM emissions reductions requirements specified in 35 IAC 205.400(c) and (e) as long as such emission units continue to satisfy the following [35 IAC 205.405(a)]:

i. Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the CAA;

- ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units, and internal combustion engines; and
- iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because they meet the criteria as indicated above [35 IAC 205.405(a) and (c)]:

- Heat Cleaning Oven
- Heat Cleaning Oven Afterburner
- Shop Line Curing Oven
- Cabinet Line Curing Oven
- Home E-quip Curing Oven
- Post Line Curing Oven
- Shelf Line Curing Oven
- Boiler
- Space Heaters - Building A
- Space Heaters - Building B

- b. VOM emissions from emission units using BAT for controlling VOM emissions shall not be subject to the VOM emissions reductions requirement specified in 35 IAC 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 IAC 205.405(b)].

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because these emission units use BAT for controlling VOM emissions as indicated above [35 IAC 205.405(b) and (c)]:

None

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit BCO-1 Heat Cleaning Oven  
Control BCO-1 Heat Cleaning Oven Afterburner

7.1.1 Description

The heat cleaning oven removes the build-up of coating on hooks used to hang parts on the source's conveyerized coating lines. Some of these lines are electrostatic, and an excessive build-up of coating prevents proper grounding, decreasing transfer efficiency and causing excessive coating usage. Another reason for cleaning hooks is to prevent the build-up of coating that increases the diameters of the hooks and prevents them from going into the hanging hole on the part. The other use for the oven is to remove the coating from rejected parts. They can be recoated and used instead of being discarded as scrap. When it has been determined by a coating line supervisor that hooks or parts need to be cleaned, they are removed from use and sent to the heat cleaning oven. These parts are loaded onto an oven cart and placed into the oven. The total cleaning cycle lasts an average of three and a half to four hours. After the cleaning process has been completed and the parts have been allowed to cool down, the burned coating is removed from the hooks or parts. The hooks or parts are then returned to their respective departments to be put back into service or recoated. The burned coating that has been rendered non-hazardous waste by the burning process is disposed of in the trash.

7.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
BCO-1	Bayco Model BB 402 Heat Cleaning Oven (Heat Cleaning Oven)	Afterburner

7.1.3 Applicability Provisions and Applicable Regulations

- a. The Paint Heat Cleaning Oven is an "affected heat cleaning oven" for the purpose of these unit-specific conditions.
- b. The affected heat cleaning oven is subject to the emission limits identified in Condition 5.2.2.
- c. The affected heat cleaning oven is subject to 35 IAC 212.321(a), which provides that:

- i. 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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].
- ii. Because the expected process weight rate for the affected heat cleaning oven is less than 100 pounds per hour, the allowable PM emission rate for the affected heat cleaning oven set by 35 IAC 212.321 is 0.55 pounds per hour.
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.1.4 Non-Applicability of Regulations of Concern

- a. The affected heat cleaning oven is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected heat cleaning oven is not by definition a fuel combustion emission unit.
- b. The affected heat cleaning oven is not subject to 35 IAC 216.141, Emissions of Carbon Monoxide from Incinerators, because the affected heat cleaning oven is not by definition an incinerator.
- c. The affected heat cleaning oven is not subject to 35 IAC 217.121, Emissions of Nitrogen Oxides from New Fuel Combustion Emission Sources, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected heat cleaning oven is not by definition fuel combustion emission unit.

- d. The affected heat cleaning oven is not subject to 35 IAC 212.181(d), Particulate Matter Emissions from Incinerators, because the affected heat cleaning oven is not by definition an incinerator.
- e. The affected heat cleaning oven is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

7.1.5 Operational and Production Limits and Work Practices

- a. Material insulated with polyvinyl chloride or asbestos, or scrap containing the fuming metals tin, zinc, or lead shall not be charged to the affected heat cleaning oven.
- b. The afterburner combustion chamber shall be preheated and maintained at the manufacturer's recommended temperature but not lower than 1400°F.
- c. The Permittee shall follow good operating practices for the afterburner, including periodic inspection, routine maintenance and prompt repair of defects.

7.1.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.1.7 Testing Requirements

None

7.1.8 Monitoring Requirements

The afterburner shall be equipped with a temperature indicator for combustion chamber temperature.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected heat cleaning oven to demonstrate compliance with Conditions 5.5.1, 7.1.3, and 7.1.5 pursuant to Section 39.5(7)(b) of the Act:

- a. Records of equipment operation including the afterburner combustion chamber temperature during the time of combustion;
- b. Records addressing use of good operating practices for the afterburner:
  - i. Records for periodic inspection of the afterburner with date, individual performing the inspection, and nature of inspection; and
  - ii. Records for prompt repair of defects, with identification and description of defect,

effect on emissions, date identified, date repaired, and nature of repair.

- c. The amount and type of material introduced to the affected heat cleaning oven, tons/mo and tons/yr;
- d. Natural gas usage for the affected heat cleaning oven, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr;
- e. The operating schedule of the affected heat cleaning oven;
- f. Monthly and annual aggregate NO<sub>x</sub> and SO<sub>2</sub> emissions from the affected heat cleaning oven shall be maintained, based on fuel usage, the amount and type of material processed, the operating schedule, the typical hourly emission rate, and the applicable emission factors, with supporting calculations; and
- g. Monthly and annual aggregate PM and VOM emissions from the affected heat cleaning oven shall be maintained based on the typical hourly emission rate and the operating schedule with supporting calculations.

#### 7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected heat cleaning oven with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Continued operation of the affected heat cleaning oven with defects in the afterburner that may result in emissions of PM or VOM in excess of the allowable limits specified in Condition 7.1.3 within 30 days of such an occurrence;
- b. Any occurrence when the affected heat cleaning oven was not operated in compliance with the requirements of Condition 7.1.5, with date, description, and explanation; and
- c. Any occurrence when the monitoring system required by Condition 7.1.8 was not in service prior to initially charging material to the affected heat cleaning oven.

#### 7.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.1.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.1.9 and the emission factors and formulas listed below:

- a. Compliance with Conditions 7.1.3(c) and (e) is assured to be achieved by proper operation of the afterburner, as addressed by Condition 7.1.5.
- b. Compliance with Condition 7.1.3(d) is assured to be achieved by the work-practices inherent in operation of a natural gas-fired heat cleaning oven.
- c. The emissions of PM and VOM from the affected heat cleaning oven shall be determined based on hourly emission rates of 0.142 lb/hr and 0.018 lb/hr, respectively, which are the emission rates determined from the most recent stack testing.
- d. To determine compliance with Condition 5.5.1, fuel combustion emissions of NO<sub>x</sub> and SO<sub>2</sub> from the affected heat cleaning oven shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
SO <sub>2</sub>	0.6

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Heat Cleaning Oven Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.2 Unit ShpPCS Nordson Model Excel 2003 Powder Coating System with Internal Filters  
Control None

7.2.1 Description

The shop line coating system is used to coat products with a powder coating. After the coating has been applied, the product moves to a curing oven.

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
ShpPCS	Nordson Model Excel 2003 Powder Coating System with Internal Filters	None

7.2.3 Applicability Provisions and Applicable Regulations

- a. The Shop Line Spray Booth is an "affected coating line" for the purpose of these unit-specific conditions.
- b. The affected coating line is subject to the emission limits identified in Condition 5.2.2.
- c. The affected coating line is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected coating line is 100 pounds per hour, the allowable PM emission rate for the affected coating line set by 35 IAC 212.322 is 0.55 pounds per hour.
- d. 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 Metal Furniture

Coating (Baked). The following emission limitation is 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. 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 [35 IAC 218.204(g)(2)]:

kg/l	lb/gal
0.28	2.3

#### 7.2.4 Non-Applicability of Regulations of Concern

- a. The affected coating line is not subject to the NSPS for Surface Coating of Metal Furniture, 40 CFR 60 Subpart EE, because the coatings do not emit volatile organic compounds.
- b. The affected coating line is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- c. No owner or operator of a coating line subject to the limitations of 35 IAC 218.204 is required to meet the limitations of 35 IAC 218.301 or 218.302, Use of Organic Material, after the date by which the coating line is required to meet 35 IAC 218.204 [35 IAC 218.209].

#### 7.2.5 Operational and Production Limits and Work Practices

The Permittee shall follow good operating practices for the dry filters, including periodic inspection, routine maintenance and prompt repair of defects.

#### 7.2.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

#### 7.2.7 Testing Requirements

- a. The VOM content of each coating shall be determined by the applicable test methods and procedures specified in 35 IAC 218.105 to establish the records required under Condition 7.2.9(b) (see also 35 IAC 218.211) [35 IAC 218.211(a)].

- b. Upon reasonable request by the Illinois EPA, pursuant to Section 39.5(7)(b) of the Act, the VOM content of specific coatings and cleaning solvents used on the affected coating line shall be determined as follows:
  - i. The VOM content of representative coatings "as applied" on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).
  - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.2.9(b) directly reflect the application of such material and separately account for any additions of solvent.

#### 7.2.8 Monitoring Requirements

None

#### 7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance with Conditions 5.5.1 and 7.2.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.2.7, which include the following [Section 39.5(7)(e) of the Act]:
  - i. Identification of material tested;
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and
  - iv. Person performing analysis.
- b. Pursuant to 35 IAC 218.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected 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 affected coating line; and
  - 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 affected coating line.
- c. Records addressing use of good operating practices for the dry filters:
  - i. Records for periodic inspection of the dry filters with date, individual performing the inspection, and nature of inspection; and
  - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. Records of the coating usage for the affected coating line, lb/month and ton/yr;
- e. The VOM content of coatings, % by Wt;
- f. The solvent usage for the affected coating line, gal/month and gal/yr;
- g. Density of solvent, lb/gal; and
- h. The monthly and aggregate annual PM and VOM emissions from the affected coating line based on the material usage, with supporting calculations.

#### 7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Pursuant to 35 IAC 218.211(c)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.2.3(d) (see also 35 IAC 218.204) within 30 days following the occurrence of the violation.

- b. Continued operation of an affected coating line with a defect in a paint booth filter that may result in emissions of particulate matter in excess of limits in Condition 7.2.3(c) within 30 days of such an occurrence.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.2.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.2.3(c) is assumed to be achieved by proper operation of the dry filters, as addressed by Condition 7.2.5.
- b. To determine compliance with Condition 5.5.1, PM and VOM emissions from the affected coating line shall be calculated based on the following:

- i. Particulate Matter Emissions:

$$\text{PM (lb)} = (\text{Coating Usage, lb}) \times [1 - (\text{Transfer Efficiency}^* (\%)/100)] \times [1 - (\text{Dry Filter Efficiency}^* (\%)/100)]$$

\*As specified by manufacturer or vendor of the spray booths and dry filters

- ii Volatile Organic Material Emissions:

$$\text{VOM (lb)} = (\text{Coating Usage, lb}) \times (\text{VOM Content of Coating, \% by Wt.}) + (\text{Cleaning Solvent Usage, gal}) \times (\text{Solvent Density, lb/gal})$$

7.3 Unit ShpLDT Shop Line Dip Tank

7.3.1 Description

The shop line coating system is used to coat products with a baked-on enamel coating. The product travels on a conveyor to the dip tank where a water base coating is applied by dipping the product into a tank full of the coating. After the coating has been applied, the product moves to a curing oven.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
ShpLDT	Shop Line Dip Tank	None

7.3.3 Applicability Provisions and Applicable Regulations

- a. The Shop Line Dip Tank is an "affected coating line" for the purpose of these unit-specific conditions.
- b. 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 Metal Furniture Coating (Baked). The following emission limitation is 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. 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 [35 IAC 218.204(g)(2)]:

kg/l	lb/gal
0.28	2.3

7.3.4 Non-Applicability of Regulations of Concern

- a. The affected coating line is not subject to the NSPS for Surface Coating of Metal Furniture, 40 CFR 60 Subpart EE, because construction, modification, or reconstruction of the affected coating line was commenced prior to November 28, 1980.
- b. No owner or operator of a coating line subject to the limitations of 35 IAC 218.204 is required to meet the limitations of 35 IAC 218.301 or 218.302, Use of Organic Material, after the date by which the coating

line is required to meet 35 IAC 218.204 [35 IAC 218.209].

7.3.5 Operational and Production Limits and Work Practices

None

7.3.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.3.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 218.105(a), 218.211(a), and Section 39.5(7)(b) of the Act]:

a. On at least an annual basis:

i. The VOM content of representative coatings "as applied" on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).

ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.3.9(b) directly reflect the application of such material and separately account for any additions of solvent.

iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.

b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a) [35 IAC 218.105(a) and 218.211(a)].

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance with Conditions 5.5.1 and 7.3.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.3.7, which include the following [Section 39.5(7)(e) of the Act]:
  - i. Identification of material tested;
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and
  - iv. Person performing analysis.
- b. Pursuant to 35 IAC 218.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected 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 affected coating line; and
  - 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 affected coating line.
- c. Records of the coating usage for the affected coating line, gal/day and gal/yr;
- d. The VOM content of coatings, % by Wt;
- e. Density of coatings, lb/gal;
- f. The solvent usage for the affected coating line, gal/day and gal/yr;
- g. Density of solvent, lb/gal; and

- h. The aggregate monthly and annual VOM emissions from the affected coating line based on the material usage, with supporting calculations.

#### 7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Pursuant to 35 IAC 218.211(c)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.3.3(b) (see also 35 IAC 218.204) within 30 days following the occurrence of the violation.

#### 7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.3.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.3.9 and the emission factors and formulas listed below:

To determine compliance with Condition 5.5.1, VOM emissions from the affected coating line shall be calculated based on the following:

$$\text{VOM (lb)} = (\text{Coating Usage, gal}) \times (\text{Coating Density, lb/gal}) \times (\text{VOM Content of Coating, \% by Wt.}) + (\text{Cleaning Solvent Usage, gal}) \times (\text{Solvent Density, lb/gal})$$

7.4 Unit ShpLW Shop Line Washer

7.4.1 Description

This unit is a three stage washer where a rust-preventative phosphate cleaning solution is used and all oil and dirt are removed prior to coating. The product then enters two rinse stages using city water to remove all cleaning solution. The product is then dried in the dry-off portion of the washer. After the product is dried, it travels on the conveyor to either the spray booth or the dip tank.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
ShpLW	Shop Line Washer	None

7.4.3 List of Emission Units and Pollution Control Equipment

- a. The Shop Line Washer is an "affected washer" for the purpose of these unit-specific conditions.
- b. The affected washer is subject to the emission limits identified in Condition 5.2.2.
- c. The affected washer is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected washer is 10,108 pounds per hour, the allowable PM emission rate for the affected washer set by 35 IAC 212.322 is 12.14 pounds per hour.
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].

- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.4.4 Non-Applicability of Regulations of Concern

- a. The affected washer is not subject to the NESHAP for Halogenated Solvent Cleaning, 40 CFR 63 Subpart T because the affected washer is not a batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected washer is not by definition a fuel combustion emission unit.
- c. The affected washer is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides from Existing Fuel Combustion Emission Sources in Major Metropolitan Area, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected washer is not by definition fuel combustion emission unit.
- d. The affected washer is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- e. The affected washer is not subject to 35 IAC 218 Subpart E: Solvent Cleaning, because the affected washer is not a cold cleaning operation, an open top vapor degreaser, or a conveyORIZED degreaser.

7.4.5 Operational and Production Limits and Work Practices

- a. The affected washer shall only be operated with cleaning solutions containing no organic materials nor any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer shall only be operated with natural gas as the fuel.

7.4.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected washer to demonstrate compliance with Conditions 5.5.1 and 7.4.3, pursuant to Section 39.5(7)(b) of the Act:

- a. The name and identification number of each cleaning solution used in the affected washer;
- b. The weight of VOM and HAPs per volume of each cleaning solution (minus water and any compounds which are specifically exempted from the definition of VOM) used in the affected washer;
- c. Records of the fuel usage for the affected washer, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- d. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected washer shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected washer with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

The usage of any cleaning solutions containing organic materials or any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent within 30 days of such an occurrence.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.4.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.4.3 is assured by the work-practices inherent in operation of a natural gas-fired dryer on the affected washer.
- b. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected washer shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.5 Unit ShpLCO Shop Line Curing Oven

7.5.1 Description

After the coating has been applied, the product moves to this natural gas-fired curing oven. The curing oven is maintained at a temperature of 400°F which is required to obtain a completely cured coating.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
ShpLCO	Eclipse Model 280AH Curing Oven (Shop Line Curing Oven)	None

7.5.3 List of Emission Units and Pollution Control Equipment

- a. The Shop Line Curing Oven is an "affected curing oven" for the purpose of these unit-specific conditions.
- b. The affected curing oven is subject to the emission limits identified in Condition 5.2.2.
- c. The affected curing oven is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected curing oven is 10,278.31 pounds per hour, the allowable PM emission rate for the affected curing oven set by 35 IAC 212.322 is 12.28 pounds per hour.
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the

atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.5.4 Non-Applicability of Regulations of Concern

- a. The affected curing oven is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected curing oven is not by definition a fuel combustion emission unit.
- b. The affected curing oven is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides from Existing Fuel Combustion Emission Sources in Major Metropolitan Area, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected curing oven is not by definition fuel combustion emission unit.
- c. The affected curing oven is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

7.5.5 Operational and Production Limits and Work Practices

The affected curing oven shall only be operated with natural gas as the fuel.

7.5.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items

for the affected curing oven to demonstrate compliance with Conditions 5.5.1 and 7.5.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected curing oven, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- b. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected curing oven shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

#### 7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected curing oven with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

None

#### 7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.5.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.5.3 is assured by the work-practices inherent in operation of a natural gas-fired curing oven.
- b. For the purpose of determining emissions for fee purposes, pursuant to Condition 5.5.1, the emissions of VOM from the evaporation of solvents from the coatings from the affected curing oven shall be accounted for in the VOM emissions from the coating lines, so as to not double-count emissions at the source.
- c. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected curing oven shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.6 Unit CLPCB Cabinet Line Powder Coating Booth  
 Control CLPCB Powder Coating Booth Dry Filter System

7.6.1 Description

This unit is used to coat metal parts. After the product is cleaned and dried in a three-stage washer, it travels on the conveyor to the powder coating booth where a non-VOC and non-HAP powder coating is applied. In the event a color is used that the source does not have a collector for in the powder booth, the color powder will be applied in the two touch-up booths. After the coating is applied, the coated product moves to a curing oven.

7.6.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
CLPCB	Nordson Model Excel 2003 Powder Coating Booth (Cabinet Line Powder Coating Booth)	Dry Filter System

7.6.3 Applicability Provisions and Applicable Regulations

- a. The Cabinet Line Powder Coating Booth is an "affected coating line" for the purpose of these unit-specific conditions.
- b. The affected coating line is subject to the emission limits identified in Condition 5.2.2.
- c. The affected coating line is subject to 35 IAC 212.321(a), which provides that:
  - i. 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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].
  - ii. Because the expected process weight rate for the affected coating line is less than 100 pounds per hour, the allowable PM emission rate for the affected coating line set by 35 IAC 212.321 is 0.55 pounds per hour.

- d. 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 Metal Furniture Coating (Baked). The following emission limitation is 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. 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 [35 IAC 218.204(g)(2)]:

kg/l	lb/gal
0.28	2.3

7.6.4 Non-Applicability of Regulations of Concern

- a. The affected coating line is not subject to the NSPS for Surface Coating of Metal Furniture, 40 CFR 60 Subpart EE, because no organic coatings are applied.
- b. The affected coating line is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- c. No owner or operator of a coating line subject to the limitations of 35 IAC 218.204 is required to meet the limitations of 35 IAC 218.301 or 218.302, Use of Organic Material, after the date by which the coating line is required to meet 35 IAC 218.204 [35 IAC 218.209].

7.6.5 Operational and Production Limits and Work Practices

- a. The affected coating line shall only be operated with coatings containing no organic materials or HAPs.
- b. The Permittee shall follow good operating practices for the dry filter system, including periodic inspection, routine maintenance and prompt repair of defects.

7.6.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.6.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 218.105(a), 218.211(a), and Section 39.5(7)(b) of the Act]:

a. On at least an annual basis:

- i. The VOM content of representative coatings "as applied" on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).
- ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.6.9(b) directly reflect the application of such material and separately account for any additions of solvent.
- iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.

- b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a) [35 IAC 218.105(a) and 218.211(a)].

7.6.8 Monitoring Requirements

None

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance

with Conditions 5.5.1 and 7.6.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.6.7, which include the following [Section 39.5(7)(e) of the Act]:
  - i. Identification of material tested;
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and
  - iv. Person performing analysis.
- b. Pursuant to 35 IAC 218.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected 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 affected coating line; and
  - 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 affected coating line.
- c. Records addressing use of good operating practices for the dry filter system:
  - i. Records for periodic inspection of the dry filter system with date, individual performing the inspection, and nature of inspection; and
  - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. Records of the coating usage for the affected coating line, lb/day and lb/yr;
- e. The VOM content of coatings, % by Wt;
- f. The solvent usage for the affected coating line, gal/day and gal/yr;

- g. Density of solvent, lb/gal;
- h. The operating schedule of the affected coating line;  
and
- i. The aggregate monthly and annual PM and VOM emissions from the affected coating line based on the material usage, with supporting calculations.

#### 7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Pursuant to 35 IAC 218.211(c)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.6.3(d) (see also 35 IAC 218.204) within 30 days following the occurrence of the violation.
- b. Continued operation of an affected coating line with a defect in the dry filter system that may result in emissions of particulate matter in excess of limits in Condition 7.6.3(c) within 30 days of such an occurrence.
- c. Operation of the affected coating line using coatings containing any organic materials or HAPs within 30 days of such an occurrence.

#### 7.6.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.6.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.6.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.6.3(c) is assured by proper operation of the dry filter system, as addressed by Condition 7.6.5(b).
- b. To determine compliance with Condition 5.5.1, PM and VOM emissions from the affected coating line shall be calculated based on the following:

i. Particulate Matter Emissions:

$$\text{PM (lb)} = (\text{Coating Usage, lb}) \times [1 - (\text{Transfer Efficiency}^* (\%)/100)] \times [1 - (\text{Dry Filter Efficiency}^* (\%)/100)]$$

\*As specified by manufacturer or vendor of the spray booths and dry filter system

ii. Volatile Organic Material Emissions:

$$\text{VOM (lb)} = (\text{Coating Usage, lb}) \times (\text{VOM Content of Coating, \% by Wt.}) + (\text{Cleaning Solvent Usage, gal}) \times (\text{Solvent Density, lb/gal})$$

7.7 Unit CLTUB Cabinet Line Touch-Up Booths  
 Control CLTUB Cabinet Line Touch-Up Booth Dry Filters

7.7.1 Description

In the event a color is used that the source does not have a collector for in the powder booth, the color powder will be applied in these two touch-up booths. After the coating is applied, the coated product moves to a curing oven.

7.7.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
CLTUB	2 Cabinet Line Touch-Up Booths	Dry Filters

7.7.3 Applicability Provisions and Applicable Regulations

- a. The Cabinet Line Touch-Up Booths are "affected coating lines" for the purpose of these unit-specific conditions.
- b. The affected coating lines are subject to the emission limits identified in Condition 5.2.2.
- c. The affected coating lines are subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for each affected coating line is less than 100 pounds per hour, the allowable PM emission rate for each affected coating line set by 35 IAC 212.322 is 0.55 pounds per hour.
- d. 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 Metal Furniture Coating (Baked). The following emission limitation is

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. 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 [35 IAC 218.204(g)(2)]:

kg/l	lb/gal
0.28	2.3

#### 7.7.4 Non-Applicability of Regulations of Concern

- a. The affected coating lines are not subject to the NSPS for Surface Coating of Metal Furniture, 40 CFR 60 Subpart EE, because construction, modification, or reconstruction of the affected coating lines was commenced prior to November 28, 1980 and no organic coatings are applied.
- b. The affected coating lines are not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- c. No owner or operator of a coating line subject to the limitations of 35 IAC 218.204 is required to meet the limitations of 35 IAC 218.301 or 218.302, Use of Organic Material, after the date by which the coating line is required to meet 35 IAC 218.204 [35 IAC 218.209].

#### 7.7.5 Operational and Production Limits and Work Practices

- a. The affected coating lines shall only be operated with coatings containing no VOM or HAPs.
- b. The Permittee shall follow good operating practices for the dry filters, including periodic inspection, routine maintenance and prompt repair of defects.

#### 7.7.6 Emission Limitations

There are no specific emission limitations for these units, however, there are source wide emission limitations in Condition 5.5 that include these units.

#### 7.7.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 218.105(a), 218.211(a), and Section 39.5(7)(b) of the Act]:

- a. On at least an annual basis:
  - i. The VOM content of representative coatings "as applied" on the affected coating lines shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).
  - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.7.9(b) directly reflect the application of such material and separately account for any additions of solvent.
  - iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.
- b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected coating lines shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a) [35 IAC 218.105(a) and 218.211(a)].

#### 7.7.8 Monitoring Requirements

None

#### 7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance with Conditions 5.5.1 and 7.7.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.7.7, which include the following [Section 39.5(7)(e) of the Act]:

- i. Identification of material tested;
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and
  - iv. Person performing analysis.
- b. Pursuant to 35 IAC 218.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected 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 affected coating line; and
  - 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 affected coating line.
- c. Records addressing use of good operating practices for the dry filters:
- i. Records for periodic inspection of the dry filters with date, individual performing the inspection, and nature of inspection; and
  - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. Records of the coating usage for the affected coating lines, lb/day and lb/yr;
- e. The VOM content of coatings, % by Wt;
- f. The solvent usage for the affected coating lines, gal/day and gal/yr;
- g. Density of solvent, lb/gal;
- h. The operating schedule of the affected coating lines; and

- i. The aggregate monthly and annual PM and VOM emissions from the affected coating lines based on the material usage, with supporting calculations.

#### 7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Pursuant to 35 IAC 218.211(c)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.7.3(d) (see also 35 IAC 218.204) within 30 days following the occurrence of the violation.
- b. Continued operation of an affected coating line with a defect in the dry filters that may result in emissions of particulate matter in excess of limits in Condition 7.6.3(c) within 30 days of such an occurrence.
- c. Operation of the affected coating line using coatings containing VOM or HAPs within 30 days of such an occurrence.

#### 7.7.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.7.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.7.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.7.3(c) is assured by proper operation of the dry filters, as addressed by Condition 7.7.5(b).
- b. To determine compliance with Condition 5.5.1, PM and VOM emissions from the affected coating lines shall be calculated based on the following:
  - i. Particulate Matter Emissions:

$$\text{PM (lb)} = (\text{Coating Usage, lb}) \times [1 - (\text{Transfer Efficiency}^* (\%)/100)] \times [1 - (\text{Dry Filter Efficiency}^* (\%)/100)]$$

\*As specified by manufacturer or vendor of the spray booths and dry filters

ii Volatile Organic Material Emissions:

VOM (lb) = (Coating Usage, lb) x (VOM Content of Coating, % by Wt.) + (Cleaning Solvent Usage, gal) x (Solvent Density, lb/gal)

7.8 Unit CLW Cabinet Line Washer

7.8.1 Description

After hanging the product on the Cabinet Line Coating System conveyor, the product enters a three-stage washer where a rust-preventative phosphate cleaning solution is used to clean the product removing all oils and dirt prior to coating. The product then enters the two stages that use water to remove all cleaning solution. The product is then dried in the dry-off portion of the washer. After the product is dried, it travels on the conveyor to the powder coating booth where the non-VOC powder coating is applied.

7.8.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
CLW	Cabinet Line Washer	None

7.8.3 List of Emission Units and Pollution Control Equipment

- a. The Cabinet Line Washer is an "affected washer" for the purpose of these unit-specific conditions.
- b. The affected washer is subject to the emission limits identified in Condition 5.2.2.
- c. The affected washer is subject to 35 IAC 212.321(a), which provides that:
  - i. 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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].
  - ii. Because the expected process weight rate for the affected washer is 4,706 pounds per hour, the allowable PM emission rate for the affected washer set by 35 IAC 212.321 is 4.01 pounds per hour.

- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.8.4 Non-Applicability of Regulations of Concern

- a. The affected washer is not subject to the NESHAP for Halogenated Solvent Cleaning, 40 CFR 63 Subpart T because the affected washer is not a batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected washer is not by definition a fuel combustion emission unit.
- c. The affected washer is not subject to 35 IAC 217.121, Emissions of Nitrogen Oxides from New Fuel Combustion Emission Sources, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected washer is not by definition fuel combustion emission unit.
- d. The affected washer is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- e. The affected washer is not subject to 35 IAC 218 Subpart E: Solvent Cleaning, because the affected washer is not a cold cleaning operation, an open top vapor degreaser, or a conveyORIZED degreaser.

7.8.5 Operational and Production Limits and Work Practices

- a. The affected washer shall only be operated with cleaning solutions containing no organic materials nor any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer shall only be operated with natural gas as the fuel.

7.8.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.8.7 Testing Requirements

None

7.8.8 Monitoring Requirements

None

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected washer to demonstrate compliance with Conditions 5.5.1 and 7.8.3, pursuant to Section 39.5(7)(b) of the Act:

- a. The name and identification number of each cleaning solution used in the affected washer;
- b. The weight of VOM and HAPs per volume of each cleaning solution (minus water and any compounds which are specifically exempted from the definition of VOM) used in the affected washer;
- c. Records of the fuel usage for the affected washer, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- d. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected washer shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected washer with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

The usage of any cleaning solutions containing organic materials or any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent within 30 days of such an occurrence.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.8.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.8.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.8.3 is assured by the work-practices inherent in operation of a natural gas-fired dryer on the affected washer.
- b. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected washer shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.9 Unit CLCO Cabinet Line Curing Oven

7.9.1 Description

After the powder coating has been applied, the coated product moves to this natural gas-fired curing oven. The curing oven is maintained at a temperature between 400°F and 425°F which is required to obtain a completely cured coating.

7.9.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
CLCO	Cabinet Line Curing Oven	None

7.9.3 List of Emission Units and Pollution Control Equipment

- a. The Cabinet Line Curing Oven is an "affected curing oven" for the purpose of these unit-specific conditions.
- b. The affected curing oven is subject to the emission limits identified in Condition 5.2.2.
- c. The affected curing oven is subject to 35 IAC 212.321(a), which provides that:
  - i. 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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].
  - ii. Because the expected process weight rate for the affected curing oven is 4,787 pounds per hour, the allowable PM emission rate for the affected curing oven set by 35 IAC 212.321 is 4.05 pounds per hour.
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].

- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

7.9.4 Non-Applicability of Regulations of Concern

- a. The affected curing oven is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected curing oven is not by definition a fuel combustion emission unit.
- b. The affected curing oven is not subject to 35 IAC 217.121, Emissions of Nitrogen Oxides from New Fuel Combustion Emission Sources, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected curing oven is not by definition fuel combustion emission unit.
- c. The affected curing oven is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

7.9.5 Operational and Production Limits and Work Practices

The affected curing oven shall only be operated with natural gas as the fuel.

7.9.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.9.7 Testing Requirements

None

7.9.8 Monitoring Requirements

None

#### 7.9.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected curing oven to demonstrate compliance with Conditions 5.5.1 and 7.9.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected curing oven, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- b. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected curing oven shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

#### 7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected curing oven with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

None

#### 7.9.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.9.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.9.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.9.3 is assured by the work-practices inherent in operation of a natural gas-fired curing oven.
- b. For the purpose of determining emissions for fee purposes, pursuant to Condition 5.5.1, the emissions of VOM from the evaporation of solvents from the coatings from the affected curing oven shall be accounted for in the VOM emissions from the coating lines, so as to not double-count emissions at the source.
- c. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected curing oven

shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.10 Unit HEQLDT Home E-Quip Line Dip Tank

7.10.1 Description

After the product is cleaned and dried in a three-stage washer, it travels to the dip tank and is submersed into a water base coating. As the product travels to the curing oven, excess coating drips off the product onto trays, which return the excess coating back to the dip tank. The product then moves to the curing oven.

7.10.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
HEQLDT	Home E-Quip Line Dip Tank	None

7.10.3 Applicability Provisions and Applicable Regulations

- a. The Home E-Quip Line Dip Tank is an "affected coating line" for the purpose of these unit-specific conditions.
- b. 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 Metal Furniture Coating (Baked). The following emission limitation is 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. 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 [35 IAC 218.204(g)(2)]:

kg/l	lb/gal
0.28	2.3

7.10.4 Non-Applicability of Regulations of Concern

- a. The affected coating line is not subject to the NSPS for Surface Coating of Metal Furniture, 40 CFR 60 Subpart EE, because construction, modification, or reconstruction of the affected coating line was commenced prior to November 28, 1980.
- b. No owner or operator of a coating line subject to the limitations of 35 IAC 218.204 is required to meet the limitations of 35 IAC 218.301 or 218.302, Use of Organic Material, after the date by which the coating

line is required to meet 35 IAC 218.204 [35 IAC 218.209].

7.10.5 Operational and Production Limits and Work Practices

None

7.10.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.10.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 218.105(a), 218.211(a), and Section 39.5(7)(b) of the Act]:

- a. On at least an annual basis:
  - i. The VOM content of representative coatings "as applied" on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).
  - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.10.9(b) directly reflect the application of such material and separately account for any additions of solvent.
  - iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.
- b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a) [35 IAC 218.105(a) and 218.211(a)].

#### 7.10.8 Monitoring Requirements

None

#### 7.10.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance with Conditions 5.5.1 and 7.10.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.3.7, which include the following [Section 39.5(7)(e) of the Act]:
  - i. Identification of material tested;
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and
  - iv. Person performing analysis.
- b. Pursuant to 35 IAC 218.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected 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 affected coating line; and
  - 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 affected coating line.
- c. Records of the coating usage for the affected coating line, gal/day and gal/yr;
- d. The VOM content of coatings, % by Wt;
- e. Density of coatings, lb/gal;
- f. The solvent usage for the affected coating line, gal/day and gal/yr;
- g. Density of solvent, lb/gal; and

- h. The aggregate monthly and annual VOM emissions from the affected coating line based on the material usage, with supporting calculations.

#### 7.10.11 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Pursuant to 35 IAC 218.211(c)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.10.3(d) (see also 35 IAC 218.204) within 30 days following the occurrence of the violation.

#### 7.10.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.10.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.10.9 and the emission factors and formulas listed below:

To determine compliance with Condition 5.5.1, VOM emissions from the affected coating line shall be calculated based on the following:

$$\text{VOM (lb)} = (\text{Coating Usage, gal}) \times (\text{Coating Density, lb/gal}) \times (\text{VOM Content of Coating, \% by Wt.}) + (\text{Cleaning Solvent Usage, gal}) \times (\text{Solvent Density, lb/gal})$$

7.11 Unit HEQLW Home E-Quip Line Washer

7.11.1 Description

After hanging the product on the Home E-Quip Line Coating System conveyor, the product enters this three-stage washer where a rust-preventative phosphate cleaning solution is used to clean the product, removing all oils and dirt prior to coating. The product then enters the two rinse stages that use water to remove all cleaning solution. The product is then dried in the dry-off portion of the washer. After the product is dried, it travels to the dip coating tank.

7.11.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
HEQLW	Home E-Quip Line Washer	None

7.11.3 List of Emission Units and Pollution Control Equipment

- a. The Home E-Quip Line Washer is an "affected washer" for the purpose of these unit-specific conditions.
- b. The affected washer is subject to the emission limits identified in Condition 5.2.2.
- c. The affected washer is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected washer is 5,366 pounds per hour, the allowable PM emission rate for the affected washer set by 35 IAC 212.322 is 7.94 pounds per hour.

- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.11.4 Non-Applicability of Regulations of Concern

- a. The affected washer is not subject to the NESHAP for Halogenated Solvent Cleaning, 40 CFR 63 Subpart T because the affected washer is not a batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected washer is not by definition a fuel combustion emission unit.
- c. The affected washer is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides from Existing Fuel Combustion Emission Sources in Major Metropolitan Area, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected washer is not by definition fuel combustion emission unit.
- d. The affected washer is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- e. The affected washer is not subject to 35 IAC 218 Subpart E: Solvent Cleaning, because the affected washer is not a cold cleaning operation, an open top vapor degreaser, or a conveyORIZED degreaser.

7.11.5 Operational and Production Limits and Work Practices

- a. The affected washer shall only be operated with cleaning solutions containing no organic materials nor any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer shall only be operated with natural gas as the fuel.

7.11.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.11.7 Testing Requirements

None

7.11.8 Monitoring Requirements

None

7.11.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected washer to demonstrate compliance with Conditions 5.5.1 and 7.11.3, pursuant to Section 39.5(7)(b) of the Act:

- a. The name and identification number of each cleaning solution used in the affected washer;
- b. The weight of VOM and HAPs per volume of each cleaning solution (minus water and any compounds which are specifically exempted from the definition of VOM) used in the affected washer;
- c. Records of the fuel usage for the affected washer, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- d. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected washer shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

7.11.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected washer with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

The usage of any cleaning solutions containing organic materials or any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent within 30 days of such an occurrence.

7.11.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.11.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.11.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.11.3 is assured by the work-practices inherent in operation of a natural gas-fired dryer on the affected washer.
- b. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected washer shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.12 Unit HEQLCO Home E-Quip Line Curing Oven

7.12.1 Description

After the coating has been applied, the product then moves to this natural gas-fired curing oven. The curing oven is maintained at a temperature between 400°F and 425°F, which is required to obtain a completely cured coating. The coated product is cooled down and removed from the conveyor, packed and shipped.

7.12.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
HEQLCO	Eclipse Model 120 AH Curing Oven (Home E-Quip Line Curing Oven)	None

7.12.3 List of Emission Units and Pollution Control Equipment

- a. The Home E-Quip Line Curing Oven is an "affected curing oven" for the purpose of these unit-specific conditions.
- b. The affected curing oven is subject to the emission limits identified in Condition 5.2.2.
- c. The affected curing oven is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected curing oven is 5,604 pounds per hour, the allowable PM emission rate for the affected curing oven set by 35 IAC 212.322 is 8.18 pounds per hour.

- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.12.4 Non-Applicability of Regulations of Concern

- a. The affected curing oven is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected curing oven is not by definition a fuel combustion emission unit.
- b. The affected curing oven is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides from Existing Fuel Combustion Emission Sources in Major Metropolitan Area, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected curing oven is not by definition fuel combustion emission unit.
- c. The affected curing oven is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

#### 7.12.5 Operational and Production Limits and Work Practices

The affected curing oven shall only be operated with natural gas as the fuel.

#### 7.12.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

#### 7.12.7 Testing Requirements

None

7.12.8 Monitoring Requirements

None

7.12.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected curing oven to demonstrate compliance with Conditions 5.5.1 and 7.12.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected curing oven, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- b. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected curing oven shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

7.12.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected curing oven with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

None

7.12.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.12.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.12.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.12.3 is assured by the work-practices inherent in operation of a natural gas-fired curing oven.
- b. For the purpose of determining emissions for fee purposes, pursuant to Condition 5.5.1, the emissions of VOM from the evaporation of solvents from the coatings from the affected curing oven shall be accounted for in the VOM emissions from the coating

lines, so as to not double-count emissions at the source.

- c. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected curing oven shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor (lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.13 Unit PLDT Post Line Dip Tank

7.13.1 Description

After the product is cleaned and dried in a three-stage washer, it travels to the dip tank and is submersed into a water base coating. As the product travels to the curing oven, excess coating drips off the product onto trays, which return the excess coating back to the dip tank. The product then moves to the curing oven.

7.13.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
PLDT	Post Line Dip Tank	None

7.13.3 Applicability Provisions and Applicable Regulations

- a. The Post Line Dip Tank is an "affected coating line" for the purpose of these unit-specific conditions.
- b. 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 Metal Furniture Coating (Baked). The following emission limitation is 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. 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 [35 IAC 218.204(g)(2)]:

kg/l	lb/gal
0.28	2.3

7.13.4 Non-Applicability of Regulations of Concern

- a. The affected coating line is not subject to the NSPS for Surface Coating of Metal Furniture, 40 CFR 60 Subpart EE, because construction, modification, or reconstruction of the affected coating line was commenced prior to November 28, 1980.
- b. No owner or operator of a coating line subject to the limitations of 35 IAC 218.204 is required to meet the limitations of 35 IAC 218.301 or 218.302, Use of Organic Material, after the date by which the coating

line is required to meet 35 IAC 218.204 [35 IAC 218.209].

7.13.5 Operational and Production Limits and Work Practices

None

7.13.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.13.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 218.105(a), 218.211(a), and Section 39.5(7)(b) of the Act]:

- a. On at least an annual basis:
  - i. The VOM content of representative coatings "as applied" on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).
  - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.13.9(b) directly reflect the application of such material and separately account for any additions of solvent.
  - iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.
- b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a) [35 IAC 218.105(a) and 218.211(a)].

#### 7.13.8 Monitoring Requirements

None

#### 7.13.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance with Conditions 5.5.1 and 7.13.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.3.7, which include the following [Section 39.5(7)(e) of the Act]:
  - i. Identification of material tested;
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and
  - iv. Person performing analysis.
- b. Pursuant to 35 IAC 218.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected 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 affected coating line; and
  - 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 affected coating line.
- c. Records of the coating usage for the affected coating line, gal/day and gal/yr;
- d. The VOM content of coatings, % by Wt;
- e. Density of coatings, lb/gal;
- f. The solvent usage for the affected coating line, gal/day and gal/yr;
- g. Density of solvent, lb/gal; and

- h. The aggregate monthly and annual VOM emissions from the affected coating line based on the material usage, with supporting calculations.

#### 7.13.11 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Pursuant to 35 IAC 218.211(c)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.13.3(d) (see also 35 IAC 218.204) within 30 days following the occurrence of the violation.

#### 7.13.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.13.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.13.9 and the emission factors and formulas listed below:

To determine compliance with Condition 5.5.1, VOM emissions from the affected coating line shall be calculated based on the following:

$$\text{VOM (lb)} = (\text{Coating Usage, gal}) \times (\text{Coating Density, lb/gal}) \times (\text{VOM Content of Coating, \% by Wt.}) + (\text{Cleaning Solvent Usage, gal}) \times (\text{Solvent Density, lb/gal})$$

7.14 Unit PLW Post Line Washer

7.14.1 Description

After hanging the product on the Post Line Coating System conveyor, the product enters this three-stage washer where a rust-preventative phosphate cleaning solution is used to clean the product, removing all oils and dirt prior to coating. The product then enters the two rinse stages that use water to remove all cleaning solution. The product is then dried in the dry-off portion of the washer. After the product is dried, it travels to the dip coating tank.

7.14.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
PLW	Post Line Washer	None

7.14.3 List of Emission Units and Pollution Control Equipment

- a. The Post Line Washer is an "affected washer" for the purpose of these unit-specific conditions.
- b. The affected washer is subject to the emission limits identified in Condition 5.2.2.
- c. The affected washer is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected washer is 8,409 pounds per hour, the allowable PM emission rate for the affected washer set by 35 IAC 212.322 is 10.73 pounds per hour.

- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.14.4 Non-Applicability of Regulations of Concern

- a. The affected washer is not subject to the NESHAP for Halogenated Solvent Cleaning, 40 CFR 63 Subpart T because the affected washer is not a batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected washer is not by definition a fuel combustion emission unit.
- c. The affected washer is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides from Existing Fuel Combustion Emission Sources in Major Metropolitan Area, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected washer is not by definition fuel combustion emission unit.
- d. The affected washer is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- e. The affected washer is not subject to 35 IAC 218 Subpart E: Solvent Cleaning, because the affected washer is not a cold cleaning operation, an open top vapor degreaser, or a conveyORIZED degreaser.

7.14.5 Operational and Production Limits and Work Practices

- a. The affected washer shall only be operated with cleaning solutions containing no organic materials nor any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer shall only be operated with natural gas as the fuel.

7.14.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.14.7 Testing Requirements

None

7.14.8 Monitoring Requirements

None

7.14.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected washer to demonstrate compliance with Conditions 5.5.1 and 7.14.3, pursuant to Section 39.5(7)(b) of the Act:

- a. The name and identification number of each cleaning solution used in the affected washer;
- b. The weight of VOM and HAPs per volume of each cleaning solution (minus water and any compounds which are specifically exempted from the definition of VOM) used in the affected washer;
- c. Records of the fuel usage for the affected washer, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- d. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected washer shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

7.14.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected washer with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

The usage of any cleaning solutions containing organic materials or any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent within 30 days of such an occurrence.

7.14.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.14.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.14.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.14.3 is assured by the work-practices inherent in operation of a natural gas-fired dryer on the affected washer.
- b. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected washer shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.15 Unit PLCO Post Line Curing Oven

7.15.1 Description

After the coating has been applied, the product then moves to this natural gas-fired curing oven. The curing oven is maintained at a temperature between 400°F and 425°F, which is required to obtain a completely cured coating. The coated product is cooled down and removed from the conveyor, packed and shipped.

7.15.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
PLCO	Eclipse Model 160 AH Curing Oven (Post Line Curing Oven)	None

7.15.3 List of Emission Units and Pollution Control Equipment

- a. The Post Line Curing Oven is an "affected curing oven" for the purpose of these unit-specific conditions.
- b. The affected curing oven is subject to the emission limits identified in Condition 5.2.2.
- c. The affected curing oven is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected curing oven is 5,461 pounds per hour, the allowable PM emission rate for the affected curing oven set by 35 IAC 212.322 is 8.04 pounds per hour.
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].

- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.15.4 Non-Applicability of Regulations of Concern

- a. The affected curing oven is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected curing oven is not by definition a fuel combustion emission unit.
- b. The affected curing oven is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides from Existing Fuel Combustion Emission Sources in Major Metropolitan Area, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected curing oven is not by definition fuel combustion emission unit.
- c. The affected curing oven is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

#### 7.15.5 Operational and Production Limits and Work Practices

The affected curing oven shall only be operated with natural gas as the fuel.

#### 7.15.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

#### 7.15.7 Testing Requirements

None

#### 7.15.8 Monitoring Requirements

None

#### 7.15.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected curing oven to demonstrate compliance with Conditions 5.5.1 and 7.15.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected curing oven, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- b. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected curing oven shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

#### 7.15.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected curing oven with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

None

#### 7.15.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.15.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.15.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.15.3 is assured by the work-practices inherent in operation of a natural gas-fired curing oven.
- b. For the purpose of determining emissions for fee purposes, pursuant to Condition 5.5.1, the emissions of VOM from the evaporation of solvents from the coatings from the affected curing oven shall be accounted for in the VOM emissions from the coating lines, so as to not double-count emissions at the source.
- c. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected curing oven

shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor (lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.16 Unit ShlfLDT Shelf Line Dip Tank

7.16.1 Description

After the product is cleaned and dried in a three-stage washer, it travels to the dip tank and is submersed into a water base coating. As the product travels to the curing oven, excess coating drips off the product onto trays, which return the excess coating back to the dip tank. The product then moves to the curing oven.

7.16.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
ShlfLDT	Shelf Line Dip Tank	None

7.16.3 Applicability Provisions and Applicable Regulations

- a. The Shelf Line Dip Tank is an "affected coating line" for the purpose of these unit-specific conditions.
- b. 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 Metal Furniture Coating (Baked). The following emission limitation is 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. 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 [35 IAC 218.204(g)(2)]:

kg/l	lb/gal
0.28	2.3

7.16.4 Non-Applicability of Regulations of Concern

- a. The affected coating line is not subject to the NSPS for Surface Coating of Metal Furniture, 40 CFR 60 Subpart EE, because construction, modification, or reconstruction of the affected coating line was commenced prior to November 28, 1980.
- b. No owner or operator of a coating line subject to the limitations of 35 IAC 218.204 is required to meet the limitations of 35 IAC 218.301 or 218.302, Use of Organic Material, after the date by which the coating

line is required to meet 35 IAC 218.204 [35 IAC 218.209].

7.16.5 Operational and Production Limits and Work Practices

None

7.16.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.16.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 218.105(a), 218.211(a), and Section 39.5(7)(b) of the Act]:

- a. On at least an annual basis:
  - i. The VOM content of representative coatings "as applied" on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).
  - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.16.9(b) directly reflect the application of such material and separately account for any additions of solvent.
  - iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.
- b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a) [35 IAC 218.105(a) and 218.211(a)].

7.16.8 Monitoring Requirements

None

7.16.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance with Conditions 5.5.1 and 7.16.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.3.7, which include the following [Section 39.5(7)(e) of the Act]:
  - i. Identification of material tested;
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and
  - iv. Person performing analysis.
- b. Pursuant to 35 IAC 218.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected 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 affected coating line; and
  - 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 affected coating line.
- c. Records of the coating usage for the affected coating line, gal/day and gal/yr;
- d. The VOM content of coatings, % by Wt;
- e. Density of coatings, lb/gal;
- f. The solvent usage for the affected coating line, gal/day and gal/yr;
- g. Density of solvent, lb/gal; and

- h. The aggregate monthly and annual VOM emissions from the affected coating line based on the material usage, with supporting calculations.

#### 7.16.11 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Pursuant to 35 IAC 218.211(c)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.16.3(d) (see also 35 IAC 218.204) within 30 days following the occurrence of the violation.

#### 7.16.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.16.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.16.9 and the emission factors and formulas listed below:

To determine compliance with Condition 5.5.1, VOM emissions from the affected coating line shall be calculated based on the following:

$$\text{VOM (lb)} = (\text{Coating Usage, gal}) \times (\text{Coating Density, lb/gal}) \times (\text{VOM Content of Coating, \% by Wt.}) + (\text{Cleaning Solvent Usage, gal}) \times (\text{Solvent Density, lb/gal})$$

7.17 Unit ShlfLW Shelf Line Washer

7.17.1 Description

After hanging the product on the Post Line Coating System conveyor, the product enters this three-stage washer where a rust-preventative phosphate cleaning solution is used to clean the product, removing all oils and dirt prior to coating. The product then enters the two rinse stages that use water to remove all cleaning solution. The product is then dried in the dry-off portion of the washer. After the product is dried, it travels to the dip coating tank.

7.17.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
ShlfLW	Shelf Line Washer	None

7.17.3 List of Emission Units and Pollution Control Equipment

- a. The Shelf Line Washer is an "affected washer" for the purpose of these unit-specific conditions.
- b. The affected washer is subject to the emission limits identified in Condition 5.2.2.
- c. The affected washer is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected washer is 5,751 pounds per hour, the allowable PM emission rate for the affected washer set by 35 IAC 212.322 is 8.32 pounds per hour.

- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.17.4 Non-Applicability of Regulations of Concern

- a. The affected washer is not subject to the NESHAP for Halogenated Solvent Cleaning, 40 CFR 63 Subpart T because the affected washer is not a batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected washer is not by definition a fuel combustion emission unit.
- c. The affected washer is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides from Existing Fuel Combustion Emission Sources in Major Metropolitan Area, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected washer is not by definition fuel combustion emission unit.
- d. The affected washer is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- e. The affected washer is not subject to 35 IAC 218 Subpart E: Solvent Cleaning, because the affected washer is not a cold cleaning operation, an open top vapor degreaser, or a conveyORIZED degreaser.

7.17.5 Operational and Production Limits and Work Practices

- a. The affected washer shall only be operated with cleaning solutions containing no organic materials nor any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer shall only be operated with natural gas as the fuel.

7.17.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.17.7 Testing Requirements

None

7.17.8 Monitoring Requirements

None

7.17.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected washer to demonstrate compliance with Conditions 5.5.1 and 7.17.3, pursuant to Section 39.5(7)(b) of the Act:

- a. The name and identification number of each cleaning solution used in the affected washer;
- b. The weight of VOM and HAPs per volume of each cleaning solution (minus water and any compounds which are specifically exempted from the definition of VOM) used in the affected washer;
- c. Records of the fuel usage for the affected washer, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- d. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected washer shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

7.17.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected washer with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

The usage of any cleaning solutions containing organic materials or any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent within 30 days of such an occurrence.

7.17.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.17.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.17.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.17.3 is assured by the work-practices inherent in operation of a natural gas-fired dryer on the affected washer.
- b. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected washer shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.18 Unit ShlfLCO Shelf Line Curing Oven

7.18.1 Description

After the coating has been applied, the product then moves to this natural gas-fired curing oven. The curing oven is maintained at a temperature between 400°F and 425°F, which is required to obtain a completely cured coating. The coated product is cooled down and removed from the conveyor, packed and shipped.

7.18.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
ShlfLCO	Eclipse Curing Oven (Shelf Line Curing Oven)	None

7.18.3 List of Emission Units and Pollution Control Equipment

- a. The Shelf Line Curing Oven is an "affected curing oven" for the purpose of these unit-specific conditions.
- b. The affected curing oven is subject to the emission limits identified in Condition 5.2.2.
- c. The affected curing oven is subject to 35 IAC 212.322(a), which provides that:
  - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].
  - ii. Because the expected process weight rate for the affected curing oven is 6,033 pounds per hour, the allowable PM emission rate for the affected curing oven set by 35 IAC 212.322 is 8.59 pounds per hour.
- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].

- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.18.4 Non-Applicability of Regulations of Concern

- a. The affected curing oven is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected curing oven is not by definition a fuel combustion emission unit.
- b. The affected curing oven is not subject to 35 IAC 217.141, Emissions of Nitrogen Oxides from Existing Fuel Combustion Emission Sources in Major Metropolitan Area, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected curing oven is not by definition fuel combustion emission unit.
- c. The affected curing oven is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

#### 7.18.5 Operational and Production Limits and Work Practices

The affected curing oven shall only be operated with natural gas as the fuel.

#### 7.18.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

#### 7.18.7 Testing Requirements

None

#### 7.18.8 Monitoring Requirements

None

#### 7.18.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected curing oven to demonstrate compliance with Conditions 5.5.1 and 7.18.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected curing oven, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- b. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected curing oven shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

#### 7.18.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected curing oven with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

None

#### 7.18.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.18.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.18.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.18.3 is assured by the work-practices inherent in operation of a natural gas-fired curing oven.
- b. For the purpose of determining emissions for fee purposes, pursuant to Condition 5.5.1, the emissions of VOM from the evaporation of solvents from the coatings from the affected curing oven shall be accounted for in the VOM emissions from the coating lines, so as to not double-count emissions at the source.
- c. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected curing oven

shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.19 Unit PCSPB Powder Coating System Powder Booth  
 Control PCSPB Powder Coating System Dry Filters

7.19.1 Description

This unit is used to coat products with a powder coating. After the product is hung on a conveyor, which travels the length of the coating system, and is cleaned and dried in a three-stage washer the product then travels to the Powder Coating Booth where a non-VOC and non-HAP powder coating is applied. As parts approach the powder booth they pass through a vertical array of photo electric eyes that determine the height of the parts to be coated. Plant air is drawn into the booth by the use of a fan and mixes with the powder being applied to the parts. The air flow through the booth cause the air/powder overspray mixture to be drawn through two sets of filters. The first filter is a cartridge-type that removes the unused powder coating from the air, allowing it to be reused. The air is then passed through the final filters and returned to the plant. The product leaves the powder booth and travels to the curing oven.

7.19.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
PCSPB	Binks Powder Coating Booth (Powder Coating System Powder Booth)	Dry Filter System

7.19.3 Applicability Provisions and Applicable Regulations

- a. The Powder Coating System Powder Coating Booth is an "affected coating line" for the purpose of these unit-specific conditions.
- b. The affected coating line is subject to the emission limits identified in Condition 5.2.2.
- c. The affected coating line is subject to 35 IAC 212.321(a), which provides that:
  - i. 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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].

- ii. Because the expected process weight rate for the affected coating line is less than 100 pounds per hour, the allowable PM emission rate for the affected coating line set by 35 IAC 212.321 is 0.55 pounds per hour.
  
- d. 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 Metal Furniture Coating (Baked). The following emission limitation is 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. 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 [35 IAC 218.204(g)(2)]:

kg/l	lb/gal
0.28	2.3

#### 7.19.4 Non-Applicability of Regulations of Concern

- a. The affected coating line is not subject to the NSPS for Surface Coating of Metal Furniture, 40 CFR 60 Subpart EE, because no organic coatings are applied.
  
- b. The affected coating line is not subject to the NSPS for Metal Coil Surface Coating, 40 CFR 60 Subpart TT, because no organic materials are applied to continuous metal strips with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil.
  
- c. The affected coating line is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
  
- d. No owner or operator of a coating line subject to the limitations of 35 IAC 218.204 is required to meet the limitations of 35 IAC 218.301 or 218.302, Use of Organic Material, after the date by which the coating line is required to meet 35 IAC 218.204 [35 IAC 218.209].

7.19.5 Operational and Production Limits and Work Practices

- a. The affected coating line shall only be operated with coatings containing no organic materials or HAPs.
- b. The Permittee shall follow good operating practices for the dry filter system, including periodic inspection, routine maintenance and prompt repair of defects.

7.19.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected coating line is subject to the following:

- a. Emissions and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Hours of Operation (hours/year)</u>	<u>Particulate Matter Emissions</u>	
		<u>(lb/hr)</u>	<u>(ton/yr)</u>
Powder Coating Booth	4992	0.55	1.4

- b. These limits are based on 35 IAC 212.321, the maximum process rate and the maximum hours of operation. Compliance with annual limits shall be determined from a running total of 12 months of data.
- c. The above limitations were established in Construction Permit 93040067, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21. [T1]

7.19.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 218.105(a), 218.211(a), and Section 39.5(7)(b) of the Act]:

- a. On at least an annual basis:
  - i. The VOM content of representative coatings "as applied" on the affected coating line shall be

determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).

- ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.19.9(b) directly reflect the application of such material and separately account for any additions of solvent.
  - iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.
- b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected coating line shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a) [35 IAC 218.105(a) and 218.211(a)].

#### 7.19.8 Monitoring Requirements

None

#### 7.19.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance with Conditions 5.5.1, 7.19.3, and 7.19.6 pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.19.7, which include the following [Section 39.5(7)(e) of the Act]:
  - i. Identification of material tested;
  - ii. Results of analysis;
  - iii. Documentation of analysis methodology; and
  - iv. Person performing analysis.

- b. Pursuant to 35 IAC 218.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected 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 affected coating line; and
  - 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 affected coating line.
- c. Records addressing use of good operating practices for the dry filter system:
  - i. Records for periodic inspection of the dry filter system with date, individual performing the inspection, and nature of inspection; and
  - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. Records of the coating usage for the affected coating line, lb/day and lb/yr;
- e. The VOM content of coatings, % by Wt;
- f. The solvent usage for the affected coating line, gal/day and gal/yr;
- g. Density of solvent, lb/gal;
- h. The operating schedule of the affected coating line; and
- i. The aggregate monthly and annual PM and VOM emissions from the affected coating line based on the material usage, with supporting calculations.

#### 7.19.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe

the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Pursuant to 35 IAC 218.211(c)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.19.3(d) (see also 35 IAC 218.204) within 30 days following the occurrence of the violation.
- b. Continued operation of an affected coating line with a defect in the dry filter system that may result in emissions of particulate matter in excess of limits in Conditions 7.19.3(c) and/or 7.19.6 within 30 days of such an occurrence.
- c. Operation of the affected coating line using coatings containing any organic materials or HAPs within 30 days of such an occurrence.

#### 7.19.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.19.11 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.19.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.19.3(c) is assured by proper operation of the dry filter system, as addressed by Condition 7.19.5(b).
- b. To determine compliance with Conditions 5.5.1 and 7.19.6, PM and VOM emissions from the affected coating line shall be calculated based on the following:

- i. Particulate Matter Emissions:

$$\text{PM (lb)} = (\text{Coating Usage, lb}) \times [1 - (\text{Transfer Efficiency}^* (\%)/100)] \times [1 - (\text{Dry Filter Efficiency}^* (\%)/100)]$$

\*As specified by manufacturer or vendor of the spray booths and dry filter system

- ii Volatile Organic Material Emissions:

$$\text{VOM (lb)} = (\text{Coating Usage, lb}) \times (\text{VOM Content of Coating, \% by Wt.}) + (\text{Cleaning Solvent Usage, gal}) \times (\text{Solvent Density, lb/gal})$$

7.20 Unit PCSW Powder Coating System Washer

7.20.1 Description

After the product is hung on the Powder Coating Line System conveyor ,it enters a three-stage washer where a rust-preventative phosphate cleaning solution is used to clean the product, removing all oils and dirt prior to coating. The product then enters the rinse stages that use water to remove all cleaning solution. The product is then dried in the dry-off portion of the washer. The product then travels to the Powder Coating Booth.

7.20.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
PCSW	Precision Quincy Three Stage Washer (Powder Coating System Washer)	None

7.20.3 List of Emission Units and Pollution Control Equipment

- a. The Powder Coating System Washer is an "affected washer" for the purpose of these unit-specific conditions.
- b. The affected washer is subject to the emission limits identified in Condition 5.2.2.
- c. The affected washer is subject to 35 IAC 212.321(a), which provides that:
  - i. 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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].
  - ii. Because the expected process weight rate for the affected washer is 4,828 pounds per hour, the allowable PM emission rate for the affected washer set by 35 IAC 212.321 is 4.07 pounds per hour.

- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.20.4 Non-Applicability of Regulations of Concern

- a. The affected washer is not subject to the NESHAP for Halogenated Solvent Cleaning, 40 CFR 63 Subpart T because the affected washer is not a batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected washer is not by definition a fuel combustion emission unit.
- c. The affected washer is not subject to 35 IAC 217.121, Emissions of Nitrogen Oxides from New Fuel Combustion Emission Sources, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected washer is not by definition fuel combustion emission unit.
- d. The affected washer is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).
- e. The affected washer is not subject to 35 IAC 218 Subpart E: Solvent Cleaning, because the affected washer is not a cold cleaning operation, an open top vapor degreaser, or a conveyORIZED degreaser.

7.20.5 Operational and Production Limits and Work Practices

- a. The affected washer shall only be operated with cleaning solutions containing no organic materials nor any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.
- b. The affected washer shall only be operated with natural gas as the fuel.

7.20.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected washer is subject to the following:

- a. Emissions and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Hours of Operation (hours/year)</u>	<u>E M I S S I O N S</u>			
		<u>NO<sub>x</sub></u>		<u>CO</u>	
		<u>(lb/hr)</u>	<u>(ton/yr)</u>	<u>(lb/hr)</u>	<u>(ton/yr)</u>
Three-Stage Washer	4,992	0.5	1.25	0.1	0.25
Dry Off Oven	4,992	0.35	0.87	0.07	0.18

- b. These limits are based on standard emission factors, the type of fuel(s), the maximum firing rate(s), and the maximum hours of operation. Compliance with annual limits shall be determined from a running total of 12 months of data.
- c. The above limitations were established in Construction Permit 93040067, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21. [T1]

7.20.7 Testing Requirements

None

#### 7.20.8 Monitoring Requirements

None

#### 7.20.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected washer to demonstrate compliance with Conditions 5.5.1, 7.20.3, and 7.20.6 pursuant to Section 39.5(7)(b) of the Act:

- a. The name and identification number of each cleaning solution used in the affected washer;
- b. The weight of VOM and HAPs per volume of each cleaning solution (minus water and any compounds which are specifically exempted from the definition of VOM) used in the affected washer;
- c. Records of the fuel usage for the affected washer, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- d. Records of monthly and annual aggregate CO, NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected washer shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

#### 7.20.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected washer with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. The usage of any cleaning solutions containing organic materials or any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent within 30 days of such an occurrence.
- b. Emissions of CO and/or NO<sub>x</sub> from the affected washer in excess of the emission limits in Condition 7.20.6 within 30 days of such an occurrence.

7.20.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.20.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.20.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.20.3 is assured by the work-practices inherent in operation of a natural gas-fired dryer on the affected washer.
- b. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected washer shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
CO	21
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.21 Unit PCSCO Powder Coating System Curing Oven

7.21.1 Description

After the powder coating has been applied, the coated product moves to this natural gas-fired curing oven. The oven is used to melt the coating and cure it. The oven temperature is maintained at approximately 425°F as this is the temperature required to cure the powder coating. After the curing process is completed the product is cooled down and removed from the conveyor, packed and shipped.

7.21.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
PCSCO	Precision Quincy Natural Gas -Fired Curing Oven (Powder Coating System Curing Oven)	None

7.21.3 List of Emission Units and Pollution Control Equipment

- a. The Powder Coating System Curing Oven is an "affected curing oven" for the purpose of these unit-specific conditions.
- b. The affected curing oven is subject to the emission limits identified in Condition 5.2.2.
- c. The affected curing oven is subject to 35 IAC 212.321(a), which provides that:
  - i. 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, 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 subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].
  - ii. Because the expected process weight rate for the affected curing oven is 4,873.78 pounds per hour, the allowable PM emission rate for the affected curing oven set by 35 IAC 212.321 is 4.09 pounds per hour.

- d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- e. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall apply only to photochemically reactive material [35 IAC 218.301].

#### 7.21.4 Non-Applicability of Regulations of Concern

- a. The affected curing oven is not subject to 35 IAC 216.121, Emissions of Carbon Monoxide from Fuel Combustion Emission Units, because the actual heat input of this unit is less than 2.9 MW (10 mmBtu/hr) and the affected curing oven is not by definition a fuel combustion emission unit.
- b. The affected curing oven is not subject to 35 IAC 217.121, Emissions of Nitrogen Oxides from New Fuel Combustion Emission Sources, because the actual heat input of this unit is less than 73.2 MW (250 mmBtu/hr) and the affected curing oven is not by definition fuel combustion emission unit.
- c. The affected curing oven is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

#### 7.21.5 Operational and Production Limits and Work Practices

The affected curing oven shall only be operated with natural gas as the fuel.

#### 7.21.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected curing oven is subject to the following:

- a. Emissions and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Hours of Operation (hours/year)</u>	<u>E M I S S I O N S</u>			
		<u>NO<sub>x</sub> (lb/hr)(ton/yr)</u>	<u>CO (lb/hr)(ton/yr)</u>		
Curing Oven	4,992	0.5	1.25	0.1	0.25

These limits are based on standard emission factors, the type of fuel(s), the maximum firing rate(s), and the maximum hours of operation. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. This permit is issued based on negligible emissions of volatile organic materials (VOM) from the curing oven. For this purpose, emissions shall not exceed nominal emission rates of 0.01 lb/hr and 0.044 ton/yr.
- c. The above limitations were established in Construction Permit 93040067, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 and 35 IAC Part 203. [T1]

7.21.7 Testing Requirements

None

7.21.8 Monitoring Requirements

None

7.21.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected curing oven to demonstrate compliance with Conditions 5.5.1, 7.21.3, and 7.21.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected curing oven, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- b. Records of monthly and annual aggregate CO, NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected curing oven shall be maintained, based on fuel usage and the

applicable emission factors, with supporting calculations.

#### 7.21.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected curing oven with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Emissions of CO and/or NO<sub>x</sub> from the affected curing oven in excess of the emission limits in Condition 7.21.6 within 30 days of such an occurrence.

#### 7.21.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

#### 7.21.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.21.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.21.3 is assured by the work-practices inherent in operation of a natural gas-fired curing oven.
- b. For the purpose of determining emissions for fee purposes, pursuant to Condition 5.5.1, the emissions of VOM from the evaporation of solvents from the coatings from the affected curing oven shall be accounted for in the VOM emissions from the coating lines, so as to not double-count emissions at the source.
- c. To determine compliance with Conditions 5.5.1 and 7.21.6, fuel combustion emissions from the affected curing oven shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
CO	21
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Natural Gas Combustion Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

7.22 Unit BO-1 Boiler BO-1

7.22.1 Description

This natural gas-fired boiler is used to produce heat for the offices at the source. Emissions from this unit will be the byproducts of natural gas fuel combustion.

7.22.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Rated Heat Input
BO-1	Boiler BO-1	0.84

7.22.3 Applicability Provisions

Boiler BO-1 is an "affected boiler" for the purpose of these unit-specific conditions.

7.22.4 Non-Applicability of Regulations of Concern

- a. The New Source Performance Standard for Small-Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, applies to units constructed, modified, or reconstructed after June 9, 1989. The affected boiler was constructed in 1969 and has maximum design heat input capacity of less than 2.9 MW (10 mmBtu/hr), therefore, this regulation does not apply.
- b. The affected boiler is not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the actual heat input of the affected boiler is less than 2.9 MW (10 mmBtu/hr).
- c. The affected boiler is not subject to 35 IAC 217.141, emissions of nitrogen oxides from existing fuel combustion emission sources in major metropolitan areas, because the actual heat input of the affected boiler is less than 73.2 MW (250 mmBtu/hr).
- d. Pursuant to 35 IAC 218.303, fuel combustion emission units are not subject to 35 IAC 218.301, use of organic material.

7.22.5 Operational and Production Limits and Work Practices

The affected boiler shall only be operated with natural gas as the fuel.

7.22.6 Emission Limitations

There are no specific emission limitations for this unit however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.22.7 Testing Requirements

None

7.22.8 Monitoring Requirements

None

7.22.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected boilers to demonstrate compliance with Condition 5.5.1 pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected boiler, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr; and
- b. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected boiler shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

7.22.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected boiler with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

None

7.22.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.22.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.22.9 and the emission factors and formulas listed below:

To determine compliance with Condition 5.5.1 fuel combustion emissions from the affected boiler shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Boiler Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x  
(The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

## 7.23 Units BASH Building A Space Heaters

### 7.23.1 Description

Eighty natural gas-fired space heaters are located throughout the facility. The heaters are used to retain a comfortable working temperature in the area. Emissions from these units will be the byproducts of natural gas fuel combustion.

### 7.23.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Rated Heat Input
BASH	80 Natural Gas Fired Space Heaters (Building A Space Heaters)	24.680 mmBtu/hr (Combined)

### 7.23.3 Applicable Regulations

- a. The Building A Space Heaters are "affected space heaters" for the purpose of these unit-specific conditions.
- b. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- c. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, or 218.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall only apply to photochemically reactive material [35 IAC 218.301].

### 7.23.4 Non-Applicability of Regulations of Concern

- a. The affected space heaters are not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the affected space heaters are not by definition fuel combustion emission units.
- b. The affected space heaters are not subject to 35 IAC 217.141, emissions of nitrogen oxides from existing fuel combustion emission sources in major metropolitan areas, because the actual heat input of each unit is less than 73.2 MW (250 mmBtu/hr) and the affected space heaters are not by definition fuel combustion emission units.

- c. This permit is issued based on the affected space heaters not being subject to 35 IAC 212.322 because due to the unique nature of this process, such rules cannot reasonably be applied.
- d. The affected space heaters are not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

7.23.5 Operational and Production Limits and Work Practices

The affected space heaters shall only be operated with natural gas as the fuel.

7.23.6 Emission Limitations

There are no specific emission limitations for these units however, there are source wide emission limitations in Condition 5.5 that include these units.

7.23.7 Testing Requirements

None

7.23.8 Monitoring Requirements

None

7.23.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected space heaters to demonstrate compliance with Conditions 5.5.1 and 7.23.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected space heaters, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr;
- b. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected space heaters shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

7.23.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected space

heaters with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

None

7.23.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.23.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.23.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.23.3 is assured by the work-practices inherent in operation of natural gas-fired space heaters.
- b. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected space heaters shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor (lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Space Heater Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

## 7.24 Units BBPH Building B Plant Heaters

### 7.24.1 Description

Eighty natural gas-fired space heaters are located throughout the facility. The heaters are used to retain a comfortable working temperature in the area. Emissions from these units will be the byproducts of natural gas fuel combustion.

### 7.24.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Rated Heat Input
BBPH	5 Natural Gas Fired Space Heaters (Building B Plant Heaters)	9.542 mmBtu/hr (Combined)

### 7.24.3 Applicable Regulations

- a. The Building B Plant Heaters are "affected space heaters" for the purpose of these unit-specific conditions.
- b. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 IAC 214.301].
- c. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, or 218.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall only apply to photochemically reactive material [35 IAC 218.301].

### 7.24.4 Non-Applicability of Regulations of Concern

- a. The affected space heaters are not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the affected space heaters are not by definition fuel combustion emission units.
- b. The affected space heaters are not subject to 35 IAC 217.121, emissions of nitrogen oxides from new fuel combustion emission sources, because the actual heat input of each unit is less than 73.2 MW (250 mmBtu/hr) and the affected space heaters are not by definition fuel combustion emission units.

- c. This permit is issued based on the affected space heaters not being subject to 35 IAC 212.321 because due to the unique nature of this process, such rules cannot reasonably be applied.
- d. The affected space heaters are not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM<sub>10</sub>, as identified in 35 IAC 212.324(a)(1).

#### 7.24.5 Operational and Production Limits and Work Practices

The affected space heaters shall only be operated with natural gas as the fuel.

#### 7.24.6 Emission Limitations

There are no specific emission limitations for these units however, there are source wide emission limitations in Condition 5.5 that include these units.

#### 7.24.7 Testing Requirements

None

#### 7.24.8 Monitoring Requirements

None

#### 7.24.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected space heaters to demonstrate compliance with Conditions 5.5.1 and 7.24.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the fuel usage for the affected space heaters, Mft<sup>3</sup>/mo and Mft<sup>3</sup>/yr;
- b. Records of monthly and annual aggregate NO<sub>x</sub>, PM, SO<sub>2</sub>, and VOM emissions from the affected space heaters shall be maintained, based on fuel usage and the applicable emission factors, with supporting calculations.

#### 7.24.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected space heaters with the permit requirements as follows pursuant

to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

None

7.24.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.24.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.24.9 and the emission factors and formulas listed below:

- a. Compliance with Condition 7.24.3 is assured by the work-practices inherent in operation of natural gas-fired space heaters.
- b. To determine compliance with Condition 5.5.1, fuel combustion emissions from the affected space heaters shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/Mft<sup>3</sup>)</u>
NO <sub>x</sub>	100
PM	11.9
SO <sub>2</sub>	0.6
VOM	2.8

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Tables 1.4-1, 1.4-2, and 1.4-3, AP-42, Volume I, Fifth Edition, October, 1996. VOM emission factor based on TOC factor corrected for 52% methane contribution.

Space Heater Emissions (lb) = (Natural Gas Consumed, Mft<sup>3</sup>) x (The Appropriate Emission Factor, lb/Mft<sup>3</sup>)

## 8.0 GENERAL PERMIT CONDITIONS

### 8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after June 30, 1998 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

### 8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

### 8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

### 8.4 Operational Flexibility/Anticipated Operating Scenarios

#### 8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

#### 8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes without applying for or obtaining an amendment to this permit, provided that the changes do not constitute a modification under Title I of the CAA,

emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change and the Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change [Section 39.5(12)(a) of the Act]. This notice shall:

- a. Describe the physical or operational change;
- b. Identify the schedule for implementing the physical or operational change;
- c. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
- d. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
- e. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

## 8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

## 8.6 Reporting Requirements

### 8.6.1 Monitoring Reports

A report summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

#### 8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

#### 8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be

submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

#### 8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

- i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency (MC 40)  
Bureau of Air  
Compliance Section  
P.O. Box 19276  
Springfield, Illinois 62794-9276

- ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Eisenhower Tower  
1701 First Avenue  
Maywood, Illinois 60153

iii. Illinois EPA - Air Permit Section (MC 11)

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

iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J)  
Air & Radiation Division  
77 West Jackson Boulevard  
Chicago, Illinois 60604

b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

#### 8.7 Obligation to comply with Title I requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

## 9.0 STANDARD PERMIT CONDITIONS

### 9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

### 9.2 General Obligations of Permittee

#### 9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner

unless an alternate schedule for compliance with the applicable requirement is established.

#### 9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

#### 9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

#### 9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

#### 9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

### 9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(p)(ii) of the Act]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
  - i. At reasonable times, for the purposes of assuring permit compliance; or
  - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source.

#### 9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

#### 9.5 Liability

##### 9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

##### 9.5.2 Liability of Permittee

This permit 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 sources.

##### 9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

#### 9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

#### 9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

### 9.6 Recordkeeping

#### 9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

#### 9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

#### 9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit compliance certifications annually or more frequently as specified in the applicable requirement or by permit condition.

- a. The certifications shall include descriptions of means to monitor the compliance of the source including emissions limitations, standards, and work practices in accordance with applicable requirements and permit conditions. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

#### 9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
  - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;
  - ii. The permitted source was at the time being properly operated;
  - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

#### 9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

## 9.12 Reopening and Reissuing Permit for Cause

### 9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

### 9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

### 9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

### 9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee

shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

#### 9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

#### 9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 Emissions of Particulate Matter from New Process Emission Units

10.1.1 Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

- 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, 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 subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

Where:

P = Process weight rate; and  
E = Allowable emission rate; and,

- i. Up to process weight rates of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

- ii. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

c. Limits for Process Emission Units For Which  
Construction or Modification Commenced On or After  
April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

10.2 Attachment 2 Emissions of Particulate Matter from Existing Process Emission Units

10.2.1 Process Emission Units for Which Construction or Modification Commenced Prior to April 14, 1972

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

Where:

P = Process weight rate; and  
 E = Allowable emission rate; and,

- i. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

- ii. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lb/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

10.3 Attachment 3 Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Official Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

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

#### 10.4 Attachment 4 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;
2. Minor Permit Modification; and
3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment
  - Corrects typographical errors;
  - Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
  - Requires more frequent monitoring or reporting by the Permittee;
  - Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA. This shall be handled by completing form 272-CAAPP, REQUEST FOR OWNERSHIP CHANGE FOR CAAPP PERMIT; or
  - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits.
2. Minor Permit Modification
  - Do not violate any applicable requirement;
  - Do not involve significant changes to existing

monitoring, reporting, or recordkeeping requirements  
in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
  - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.
- Are not modifications under any provision of Title I of the CAA;
- Are not required to be processed as a significant permit modification; and
- Modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- Information as contained on form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor

permit modifications or as administrative permit amendments;

- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms>.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.



Illinois Environmental Protection Agency  
 Division Of Air Pollution Control -- Permit Section  
 P.O. Box 19506  
 Springfield, Illinois 62794-9506

<b>Application For Construction Permit (For CAAPP Sources Only)</b>	For Illinois EPA use only
	ID number:
	Permit number:
	Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:	4. Zip code:	
5. Is the source located within city limits? <input type="checkbox"/> Yes <input type="checkbox"/> No		
6. Township name:	7. County:	8. ID number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? <input type="checkbox"/> Owner <input type="checkbox"/> Operator	20. All correspondence to: (check one) <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Source
21. Attention name and/or title for written correspondence:	

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.



Illinois Environmental Protection Agency  
Division Of Air Pollution Control -- Permit Section  
P.O. Box 19506  
Springfield, Illinois 62794-9506

22. Technical contact person for application:	23. Contact person's telephone number:
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This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

<b>Summary Of Application Contents</b>	
24. Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?	<input type="checkbox"/> Yes <input type="checkbox"/> No
25. Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?	<input type="checkbox"/> Yes <input type="checkbox"/> No
26. Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?	<input type="checkbox"/> Yes <input type="checkbox"/> No
27. Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	<input type="checkbox"/> Yes <input type="checkbox"/> No
28. Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.	<input type="checkbox"/> Yes <input type="checkbox"/> No
29. If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

<b>Signature Block</b>	
This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature:	
BY:	_____
AUTHORIZED SIGNATURE	TITLE OF SIGNATORY
_____	_____ / _____ / _____
TYPED OR PRINTED NAME OF SIGNATORY	DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

10.6 Attachment 6 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.
3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.
4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.
5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.
6. Information addressing any outstanding transfer agreement pursuant to the ERMS.
7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible

PRELIMINARY DRAFT CAAPP PERMIT  
FACILITY NAME  
I.D. No.: #####  
Application No.: #####  
LATEST DRAFT DATE

official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.

- b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.
8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.
9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms.html>.

PRELIMINARY DRAFT CAAPP PERMIT  
FACILITY NAME  
I.D. No.: #####  
Application No.: #####  
LATEST DRAFT DATE

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Permit Section (MC 11)  
P.O. Box 19506  
Springfield, Illinois 62794-9506