217/782-2113 "REVISED"

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT[1]

PERMITTEE

Phelps Dodge Chicago Rod, Inc.
Attn: William Dutton
2324 South Kenneth
Chicago, Illinois 60623

Application No.: 96030092 I.D. No.: 031600FBZ
Applicant's Designation: Date Received: March 7, 1996
Operation of: Copper Rod Casting
Date Issued: January 21, 2000 Expiration Date[2]: January 21, 2005
Source Location: 2324 South Kenneth, Chicago, Cook County, 60623
Responsible Official: Sam C. Yang, Vice President and General Manager

This permit is hereby granted to the above-designated Permittee to OPERATE a copper rod manufacturing source, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: June 5, 2001
Revision Date Issued: July 2, 2001
Purpose of Revision: Administrative Amendment, pursuant to Section 39.4(13) of the Act

This administrative amendment changes the names and phone numbers in Section 1.0; corrects typographical errors in Conditions 5.5.1, 7.1.5(a), and 7.4.6; and amends or modifies the emission calculation procedures in Conditions 7.1.12, 7.2.12, 7.3.12, and 7.4.12. Because the changes in the permit were only administrative, no formal public notice was issued.

This document only contains those portions of the entire CAAPP permit that have been revised as a result of this permitting action. If a conflict exists between this document and previous versions of the CAAPP permit, this document supersedes those terms and conditions of the permit for which the conflict exists. The previous permit issued January 21, 2000 is incorporated herein by reference.

Please attach a copy of this amendment and the following revised pages to the front of the most recently issued entire permit.

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

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JS:psj

cc: Illinois EPA, FOS, Region 1

USEPA

[1] This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 – federal PSD and 35 IAC Part 203 – Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

[2] Except as provided in Condition 8.7 of this permit.

TABLE OF CONTENTS

1.0 SOURCE IDENTIFICATION

1.1 Source

Phelps Dodge Chicago Rod, Inc.
2324 South Kenneth
Chicago, Illinois 60623
773/522-5036

I.D. No.: 031600FBZ
Standard Industrial Classification: 3351, Copper Rolling and Drawing

1.2 Owner/Parent Company

Cyprus Amax Minerals Co.
9100 East Mineral Circle
Englewood, Colorado 60623

1.3 Operator

Phelps Dodge Chicago Rod, Inc.
2324 South Kenneth
Chicago, Illinois 60623

David Caskey
773/522-5036

1.4 General Source Description

The Phelps Dodge Chicago Rod, Inc. is located at 2324 South Kenneth, Chicago. The source operates a copper rod manufacturing operation.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Illinois 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 E), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27717
ATU	Allotment Trading Unit
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CE	control equipment
CFR	Code of Federal Regulations
CO	Carbon Monoxide
ERMS	Emissions Reduction Market System
$^{\circ}F$	degree Fahrenheit
ft	feet
ft^3	cubic foot
ft^3	cubic feet
g	gram
gal	gallon
HAP	Hazardous Air Pollutant
HCl	Hydrochloric Acid
HEAF	high efficiency air filter
Hp	Horsepower
hr	hour
I.D. No.	Identification Number of Source, assigned by Illinois EPA
IAC	Illinois Administrative Code
ID	interior diameter
Illinois EPA	Illinois Environmental Protection Agency
IPA	isopropyl alcohol (or 2-propanol)
kg	kilogram
lb	pound
m	meter
MEK	Methyl Ethyl Ketone
$mmft^3$	million cubic feet
Mg	Megagram
mmBtu	million British thermal unit
mo	month
MSDS	Material Safety Data Sheet
MW	molecular weight
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
OD	outer diameter
PM	Particulate Matter
ppm	parts per million

PSD	Prevention of Significant Deterioration
psi	pounds square inch
psia	pounds square inch atmospheric
RMP	Risk Management Plan
SO_2	Sulfur Dioxide
SOCMI	Synthetic Organic Chemical Manufacturing Industry
T	ton
T1	Title I – identifies Title I conditions that have been carried over from an existing 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 permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOL	volatile organic liquid
VOM	Volatile Organic Material
wt.	weight
wt. %	weight percentage
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:

Air/Gas Heat Exchanger
Pickling Stations
Casting Wheels
Bar Preparation
Roughing Mill
Finishing Mill
Vacuum Filter for Water/Soluble Oil Solution

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:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Equipment used for the melting or application of less than 50,000 lbs/year of wax to which no organic solvent has been added [35 IAC 201.210(a)(7)].

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

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

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit’s process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

3.3.1 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).

3.3.2 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.

3.3.3 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
01	Pressure Filter	07/1995	Polyad Resin Adsorption System
02	Pickling Solution Process Vessel	07/1995	Polyad Resin Adsorption System
03	Finishing Mill Sump and Process Vessel	07/1995	Polyad Resin Adsorption System
04	Cleaver Brooks Boiler	Prior to 1971	None
05	Air Preheater	Prior to 1972	None
06	Pouring Pot	Prior to 1972	None
07	Holding Furnace Launder	Prior to 1972	None
08	Holding Furnace	Prior to 1971	None
09	Melting Furnace Launder	Prior to 1971	
10	Pouring Pot Preheat Station #1	Prior to 1971	None
11	Pouring Pot Preheat Station #2	Prior to 1971	None
12	Melt Furnace	Prior to 1971	None
13	Cogeneration Engine #1	08/1992	None
14	Cogeneration Engine #2	08/1992	None
15	Cogeneration Engine #3	08/1992	None
Fugitive Pollutant Emissions	Finishing Mill Gasket Seal and Leaks	---	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.

b. i. 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)].

ii. 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].

iii. 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].

c. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

d. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

5.2.3 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.

5.2.4 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or

b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual

compliance certification required by 40 CFR Part 70 or 71.

5.2.5 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.

b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:

i. Illinois EPA, Compliance Section; and

ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or

iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.2.7 PM_{10} Contingency Measure Plan

Should this stationary source, as defined in 35 IAC 212.700, become subject to the requirement to prepare and submit a contingency measure plan reflecting the PM_{10} emission reductions as set forth in 35 IAC 212.703, then the owner or operator shall submit such plan to the Illinois EPA for review and approval within ninety (90) days after the date this source becomes subject to this requirement. Such plan will be incorporated by reference into this permit and shall be implemented in accordance with 35 IAC 212.704. The source shall comply with the applicable requirements of 35 IAC Part 212, Subpart U, incorporated herein by reference.

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
Volatile Organic Material (VOM)	58.08
Sulfur Dioxide (SO_2)	0.26
Particulate Matter (PM)	20.16
Nitrogen Oxides (NO_x)	84.82
HAP, not included in VOM or PM	----
TOTAL	163.32

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 The Permittee shall maintain records of the following items to verify that the source is not a major source for HAP emissions:

Emissions of each individual HAP and combination of all HAP (ton/yr) from the entire source.

5.6.3 Records for Operating Scenarios

N/A

5.6.4 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 Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and Compliance Procedures in Section 7 (Unit Specific Conditions) of this permit.

6.0 EMISSIONS 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 should 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

Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not

exceed 15 tons, not including VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit. This limitation is established at the request of the source to exempt it from the requirements of 35 IAC Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 IAC 205.205.

6.3 Recordkeeping and Reporting

a. The Permittee shall maintain the following records to determine compliance with the above limitation:

i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 5 and 7 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;

ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 5 and 7 of this permit; and

iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.

b. The Permittee shall submit the seasonal emissions component of the Annual Emissions Report by November 30 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 IAC 205.205(b) and 35 IAC 205.300.

c. In the event that the source’s VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and beginning with the following seasonal allotment period, shall comply with 35 IAC Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.

6.4 Federal Enforceability

Section 6.0 becomes federally enforceable upon approval of the ERMS by USEPA as part of Illinois’ State Implementation Plan.

7.0 UNIT SPECIFIC CONDITIONS

7.1 Units 01-03: IPA Recovery System

7.1.1 Description

The source manufactures 5/16 inch copper rod from copper cathode stock. The process consists of several distinct steps, including melting the copper, casting and bar prep, roughing mill, finishing mill, pickling, coiling and packaging. In some of these steps, isopropyl alcohol (IPA) is used for lubrication and to remove surface oxides.

The IPA solution used in the finishing mill and pickling boxes must be filtered prior to reuse. Solution containing IPA from the finishing mill and pickling mill is filtered, stored and recirculated. The 2,000 gallon finishing mill sump and the 6,500 gallon pickling solution process vessel are both vented to a fluidized bed resin adsorption system (Polyad Resin Adsorption System) for IPA control prior to being exhausted to the atmosphere.

The Polyad Resin Adsorption System (two units in series) controls VOM emissions from the finishing mill and pickling process vessels. This system is similar to carbon bed adsorption except that the adsorption medium is a polymer resin in bead form instead of activated carbon. Resin material is continuously recirculated through the desorption side of the unit, where steam heat desorbs the IPA off the resin material. Desorbed IPA and steam are extracted from the desorption unit and routed through a condenser where water is separated from the IPA solution. Recovered IPA is discharged for reuse to the finishing mill and pickling mill processes.

7.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
01	Pressure Filter with Storage Tank	Polyad Resin Adsorption System
02	Pickling Solution Process Vessel	Polyad Resin Adsorption System
03	Finishing Mill Sump and Process Vessel	Polyad Resin Adsorption System

7.1.3 Applicability Provisions and Applicable Regulations

a. An “affected copper rod manufacturing operation” for the purpose of these unit-specific conditions, is

b. The affected copper rod manufacturing operation is subject to the 35 IAC 218 Subpart TT, because this source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units, other than furnaces at glass container manufacturing sources and VOM leaks from components, that are:

i. Not regulated by Subparts B, E, F, H, Q, R, S, T, (excluding Section 218.486 of this Part), V, X, Y, Z, or BB of this Part, or

ii. Not included in any of the following categories: synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations [35 IAC 218.980(b)].

c. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of Polyad Resin Adsorption System, the Permittee is authorized to continue operation of the copper rod manufacturing operation in violation of the applicable requirement of 35 IAC 218.986(a) and control requirements of condition 7.1.5, as necessary to prevent risk of injury to personnel or severe damage to the copper melting furnaces. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the Polyad Resin Adsorption System or remove the affected copper rod manufacturing operation from service as soon as practicable. This shall be accomplished within 3 days unless the Permittee obtains an extension from the Illinois EPA. The request for such an extension must document that parts to repair the Polyad Resin Adsorption System is unavailable and specify a schedule of

actions the Permittee will take that will assure the feature(s) will be repaired.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.1.9(b) and 7.1.10(a).

7.1.4 Non-Applicability of Regulations of Concern

The affected copper rod manufacturing operation is not subject to 35 IAC 218.301, because if no odor nuisance exists, the limitation of 35 IAC 218 Subpart G shall only apply to photochemically reactive material [35 IAC 218.301]. The isopropyl alcohol solution used in the affected copper rod manufacturing operation is not photochemically reactive [35 IAC 211.4690].

7.1.5 Control Requirements

Every owner or operator of an emission unit subject to the 35 IAC 218 Subpart TT Subpart shall achieve emission capture and control equipment an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit. To assure compliance with this rule and the emission limits in Condition 7.1.6, the Permittee shall operate the two Polyad Resin Adsorption Systems as follows:

a. The difference in the pressure differential between the adsorber and the desorber of each adsorption system shall be at least 6 psi.

b. The exhaust outlet temperature of the desorber of each adsorption system shall be at least 190 °F.

c. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Act or regulations promulgated therein.

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected copper rod manufacturing operation is subject to the following:

a. Emissions and operation of the Summit filter system shall not exceed the following limits:

Fresh IPA Usage*		VOM Emissions	
(ton/mo)	(ton/yr)	(ton/mo)	(ton/yr)
43.29	518.68	3.29	39.42

* Not including water

These limits are based on maximum material usage, a 60 percent rate of conversion to acetone (non-VOM), and emissions control by two Polyad Resin Adsorption Systems with an overall reduction in uncontrolled VOM emissions of at least 81 percent.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations contain revisions to previously issued Permit 95050058. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the annual emission limit was increased from 16.2 ton/year to 39.42 ton/yr. The lower emission limit reflects a more stringent control requirement than Condition 7.1.5. This lower emission limit was not required pursuant to any regulation or to avoid the applicability of 35 IAC Part 203, because the construction of the control equipment in the Permit 95050058 caused an overall reduction in emissions [T1R].

7.1.7 Testing Requirements

a. When in the opinion of the Illinois EPA it is necessary to conduct testing to demonstrate compliance with 35 IAC 218.986, the owner or operator of a VOM emission unit subject to the requirements of 35 IAC 218 Subpart TT shall, at his own expense, conduct such tests in accordance with the applicable test methods and procedures specified in 35 IAC 218.105.

b. Nothing in this Condition shall limit the authority of the USEPA pursuant to the CAA, as amended, to require testing.

7.1.8 Monitoring Requirements

a. The owner or operator of the affected copper rod manufacturing operation shall monitor on a continuous basis the following parameters to ensure proper operation of the control device:

i. The difference in the pressure differential between the adsorber and the desorber of each adsorption unit of the Polyad Resin Adsorption System.

ii. The exhaust outlet temperature of the desorber of each adsorption unit of the Polyad Resin Adsorption System.

b. The Permittee shall perform routine monitoring of the affected copper rod manufacturing operation in order to detect leaking components. Any leaks from components subject to the control requirements of 35 IAC 218, Subpart TT shall be subject to the following control measures:

i. Repair any component from which a leak of VOL can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found, unless the leaking component cannot be repaired until the next process unit shutdown, in which case the leaking component must be repaired before the unit is restarted [35 IAC 218.986(e)(1)].

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 copper rod manufacturing operation to

demonstrate compliance with Conditions 5.5.1 and the other requirements of this permit, pursuant to Section 39.5(7)(b) of the Act:

a. Records of operation and emissions, including the following:

    i. Amount of fresh IPA added (gal/mo and gal/yr);

    ii. Density of IPA added (lb/gal);

    iii. Records indicating the rate of conversion of IPA to acetone, based on the most recent source tests;

    iv. Records indicating the actual control efficiency of the control device, based on the most recent performance tests; and

    v. VOM emissions (ton/mo and ton/yr);

b. The owner or operator of the affected copper rod manufacturing operation shall collect and record all of the following information each day and maintain the information at the plant [35 IAC 218.991(a)(2)]:

    i. Control device monitoring data required by Condition 7.1.8 (i.e., pressure differential between the adsorber and the desorber, exhaust outlet temperature);

    ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and

    iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages;

c. Pursuant to 35 IAC 218.986(e)(2), the Permittee shall record the following for leaks detected by the routine monitoring required by Condition 7.1.8:

    i. For any leak which cannot be readily repaired within one hour after detection, the following records, as set forth below in this subsection, shall be kept. These records shall be maintained by the owner or operator for a minimum of two years after the date on

which they are made, or such longer period as may be specified by this permit. Copies of the records shall be made available to the Illinois EPA or USEPA upon verbal or written request.

A. The name and identification of the leaking component;

B. The date and time the leak is detected;

C. The action taken to repair the leak; and

D. The date and time the leak is repaired.

d. Records for Malfunctions and Breakdowns of the polyad Resin Adsorption System.

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of a copper rod melting furnace which is already in operation (rod is already melting) during malfunctions and breakdown of the control features of the Polyad Resin Adsorption System, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or removed from service without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

7.1.10 Reporting Requirements

The owner or operator of a subject process shall notify the Illinois EPA, Compliance Section of noncompliance of an affected copper rod manufacturing operation with the control and operating 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. Report of Deviation

Report of any violation of the requirements of 35 IAC 218 Subpart TT and 35 IAC 218.301 by sending a copy of any record showing a violation to the Illinois EPA, Compliance Section, within 30 days following the occurrence of the violation [35 IAC 218.990(a)(3)].

b. At least 30 calendar days before changing the method of compliance for an affected copper rod manufacturing operation, the applicable emission determination method indicated in Condition 7.1.12, the Permittee shall certify to the Illinois EPA that the copper rod manufacturing operation will be in compliance with the applicable limitation of this permit consistent with the requirements of the compliance certification reports of Condition 9.8.

c. Reporting of Malfunctions and Breakdowns for the Polyad Resin Adsorption System

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of a melting furnace subject to Condition 7.1.3(c) during malfunction or breakdown of the control features of the Polyad Resin Adsorption System.

i. The Permittee shall notify the Illinois EPA’s regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction, or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the melting furnace was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and

when the repairs were completed or when the melting furnace was taken out of service.

iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the melting furnace will be taken out of service.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected copper rod manufacturing operation without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

N/A

7.1.12 Compliance Procedures

a. Compliance with the VOM emission limits in Condition 7.1.6 shall be determined by the recordkeeping requirements in Condition 7.1.9 and the emission calculation methodology described below.

Emissions (lb) = Fresh IPA usage (gal) * IPA density (lb/gal) * (1 - Conversion to Acetone, %) * (1 - VOM Control Efficiency, %)

Where conversion to acetone is 60% or the conversion rate derived from the most recent source tests and VOM control efficiency is derived from the most recent source tests.

b. If an explicit measurement of the capture and control efficiency is not available, compliance with the VOM emission capture and control requirement in Condition 7.1.5 may be determined on a 7-day rolling period basis by the operating parameters in Condition 7.1.5,

the monitoring and recordkeeping requirements in this permit and the procedures in 35 IAC 218.105(c)(1)(B)(i).

7.2 Units 04-05: Boiler and Air Preheater

7.2.1 Description

The Cleaver Brooks Boiler and Air Preheater are natural gas fired fuel combustion emission units used as the primary source of heat for the plant.

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Rated Heat Input
04	Cleaver Brooks Boiler	20.9 mmBtu/hr
05	Air Preheater	7.0 mmBtu/hr

7.2.3 Applicable Regulations

a. An “affected fuel combustion emission unit” for the purpose of these unit-specific conditions, is equipment used for producing heat.

b. An affected fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr), as specified in Condition 7.2.2, is subject to 35 IAC 216.121, which specifies that no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere to exceed 200 ppm, corrected to 50 percent excess air.

7.2.4 Non-Applicability of Regulations of Concern

a. The affected fuel combustion emission units are not subject to the New Source Performance Standard for Small-Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc. The affected fuel combustion emission units were constructed prior to applicability date of June 9, 1989.

b. An affected fuel combustion emission unit with actual heat input less than or equal to 2.9 MW (10 mmBtu/hr), as specified in Condition 7.2.2, is not subject to 35 IAC 216.121.

c. The affected fuel combustion emission units are not subject to 35 IAC 217.141, because the actual heat input of each unit is less than 73.2 MW (250 mmBtu/hr).

d. The affected fuel combustion emission units are not subject to 35 IAC 218.301, pursuant to 35 IAC 218.303,

which states that fuel combustion emission units are not subject to 35 IAC 218.301.

7.2.5 Operational and Production Limits and Work Practices

The affected fuel combustion emission units shall only be operated with natural gas as the fuel.

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

None

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 fuel combustion emission units to demonstrate compliance with Condition 5.5.1 pursuant to Section 39.5(7)(b) of the Act:

a. Records of the annual fuel usage; and

b. Records of annual aggregate NO_x, PM, CO, SO_2, and VOM emissions based on fuel consumption and the applicable emission factors, with supporting calculations.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected fuel combustion emission unit with the control and operating requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

a. Emissions of NO_x, PM, CO, SO_2, and VOM in excess of the limits specified in Condition 5.5.1 based on the current year’s records within 30 days of such an occurrence.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

a. Compliance with the emission limits in Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.2.9 and the emission factors and formulas listed below:

Pollutant	Emission Factor ($lb/10^6\ ft^3$)
NO_x	100
PM	7.6
SO_2	0.6
VOM	5.5
CO	84

These are the emission factors for uncontrolled natural gas combustion in small boilers (< 100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Supplement D, March 1998.

Emissions (lb) = natural gas consumed multiplied by the appropriate emission factor

b. Compliance with the CO emission limit in Condition 7.2.3(b) is assured by proper operation of the affected fuel combustion emission units and the operating limitation in Condition 7.2.5(a).

7.3 Units 06-12: Copper Melting

7.3.1 Description

The source manufactures 5/16 inch copper rod from copper cathode stock. The process consists of several distinct steps, including melting the copper, casting and bar prep, roughing mill, finishing mill, pickling, coiling and packaging.

In the copper melting step, copper cathodes are fed to a natural gas fired melting oven, heated to 2,000 °F, and melted. The molten copper then flows through a controlled atmosphere into a holding furnace where the oxygen level is controlled, and any residual slag and gases are eliminated. From the holding oven, the molten copper passes into a pour pot, which pours the copper onto the casting wheel. Emissions from copper melting operations consist primarily of fuel combustion by-products including nitrogen oxides, and lesser quantities of carbon monoxide particulate matter, volatile organic matter and sulfur oxides. Particulate matter emissions are also generated from the hold furnace and melt furnace.

The casting and bar prep, roughing mill, finishing mill, pickling, coiling and packaging steps are considered insignificant activities and are listed in Section 3.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
06	Pouring Pot	None
07	Holding Furnace Launder	None
08	Holding Furnace	None
09	Melting Furnace Launder	None
10	Pouring Pot Preheat Station #1	None
11	Pouring Pot Preheat Station #2	None
12	Melt Furnace	None

7.3.3 Applicability Provisions and Applicable Regulations

a. An “affected copper melting unit” for the purpose of these unit-specific conditions, is equipment used for the melting and handling of copper.

b. The affected copper melting units are subject to 35 IAC 218.301, which states that the emission of VOM

into the atmosphere shall not exceed 3.6 kg/hr (8 lb/hr) 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.

c. The affected copper melting units are subject to 35 IAC 212.322, which provides that:

> No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any existing 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2 of this permit) [35 IAC 212.322(a)].

7.3.4 Non-Applicability of Regulations of Concern

The affected copper melting units are not subject to the control requirements of 35 IAC 218 Subpart TT: Other Emission Units, because these regulations do not apply to fuel combustion units [35 IAC 218.980(f)].

7.3.5 Operational Limits And Work Practices

The affected copper melting units shall only use natural gas for combustion.

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

None

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 each affected copper melting unit to demonstrate compliance with Conditions 5.5.1 and the other requirements of this permit, pursuant to Section 39.5(7)(b) of the Act:

a. Maximum process weight rate (lb/hr) for each individual affected copper melting unit;

b. Particulate matter and VOM emission from each individual affected copper melting unit; and

c. Annual aggregate NO_x, PM, SO_2, and VOM emissions from each individual affected copper melting unit, based on hours of operation, process weight rate and the applicable emission factors, with supporting calculations.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected copper melting unit 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. Emissions of NO_x, PM, CO, SO_2, and VOM in excess of the limits specified in Condition 5.5.1 based on the current year's records within 30 days of such an occurrence.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

a. Compliance with the PM emission limitations in this section shall be determined by the recordkeeping required in Condition 7.3.9 and the emission factors for furnaces used in secondary copper casting operations, Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, August 1995.

Emissions (lb) = (Process Weight Rate, ton) * 0.015 lb/ton.

b. Emissions attributable to fuel combustion from the affected copper melting units shall be determined by using the following emission factors and equation:

Pollutant	Emission Factor ($lb/10^6$ ft^3)
NO_x	100
PM	7.6
SO_2	0.6
VOM	5.5
CO	84

These are the emission factors for uncontrolled natural gas combustion in small boilers (< 100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Supplement D, March 1998.

Emissions (lb) = natural gas consumed multiplied by the appropriate emission factor

7.4 Units 13-15: Cogeneration Engines

7.4.1 Description

The cogeneration engines are natural gas-fired internal combustion engines (each rated at 1053 horsepower). These are process emission units operated to generate electricity by direct heat transfer.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
13	Cogeneration Engine #1	None
14	Cogeneration Engine #2	None
15	Cogeneration Engine #3	None

7.4.3 Applicable Regulations

a. The “affected cogeneration engines” for the purpose of these unit-specific conditions, are engines used to generate electricity by direct heat transfer.

b. The affected cogeneration engines are subject to 35 IAC 218.301, which states that the emission of VOM into the atmosphere shall not exceed 3.6 kg/hr (8 lb/hr) 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].

7.4.4 Non-Applicability of Regulations of Concern

a. The affected cogeneration engines are not subject to the control requirements of 35 IAC 218 Subpart TT: Other Emission Units, because these regulations do not apply to fuel combustion units [35 IAC 218.980(f)].

b. The affected cogeneration engines are not subject to the requirements of 35 IAC Part 203, Subpart B: Major Stationary Sources in Nonattainment Areas due to provisions of Condition 7.4.6.

7.4.5 Operational and Production Limits, and Work Practices

a. Natural gas shall be the only fuel used in the affected cogeneration engines.

b. The operation and equipment firing rate of the engines shall not exceed the following:

Emission Source	Operating Hours (hr/mo)	Operating Hours (hr/yr)	Firing Rate (mmBtu/Hr)	Firing Rate (mmBtu/Yr)
Engine (Each)	299	3,380	7.903	26,712.14

c. The natural gas consumption in million cubic feet shall not exceed the following:

Source	Fuel ($mmft^3$/mo)	Fuel ($mmft^3$/yr)
Engine (Each)	2.36	26.71

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5.1, the affected cogeneration engines are subject to the following:

a. Emissions of nitrogen oxides (NO_x), carbon monoxide (CO) and volatile organic material (VOM) from the engines shall not exceed the following limits:

	EMISSIONS					
	NO_x		CO		VOM	
	(lb/hr)	(t/yr)	(lb/hr)	(t/yr)	(lb/hr)	(t/yr)
Engine (Each)	7.92	13.40	4.31	7.30	0.41	0.70
Engines (Total)	23.76	42.20	12.93	21.90	1.23	2.10

These limits are based on the maximum operation of the affected cogeneration engines at the operational limits listed in Condition 7.4.5 and the emission factors listed in Condition 7.4.12.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 92080071, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned 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].

7.4.7 Testing Requirements

a. Within 45 days of a written request by the Illinois EPA, the Permittee shall have the opacity of the affected cogeneration engines determined by a certified observer in accordance with USEPA Test Method 9 during representative operating conditions of the affected cogeneration engines as specified by the Illinois EPA. Illinois EPA may require such observations if, based on its observations, the opacity of an affected cogeneration engine does not comply with 35 IAC 212.123, or an affected cogeneration engine is poorly maintained or operated so as to cause noncompliance with 35 IAC 212.123.

b. i. The Permittee shall notify the Illinois EPA at least 15 days in advance of the date and time of observations, in order to allow the Illinois EPA to witness the observations. This notification shall include the name and employer of the certified observer(s) and identify any concerns for successful completion of observations, i.e., lack of suitable point for proper observation or inability to conduct observations under specified conditions;

ii. The Permittee shall promptly notify the Illinois EPA of any changes in the date and time of observation; and

iii. The Permittee shall provide a copy of its observers readings to the Illinois EPA at the time of observations, if Illinois EPA personnel are present at the conclusion of observations.

c. The Permittee shall submit a written report for these observations within 15 days of the date of observation. Pursuant to Section 39.5(7)(e) of the Act, this report shall include:

i. The date, place, and time of sampling or measurements;

ii. The company or entity that performed the analysis;

iii. The analytical techniques or methods used;

iv. The operating conditions as existing at the time of sampling or measurement; and

v. The results of such analyses.

7.4.8 Monitoring Requirements

The Permittee shall install and operate a continuous monitoring system to monitor and record the fuel consumption for the affected cogeneration engines.

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 cogeneration engines to demonstrate compliance with Conditions 5.5.1 and 7.4.6, pursuant to Section 39.5(7)(b) of the Act:

a. Annual aggregate NO_x, CO, PM, SO_2, and VOM emissions from each affected cogeneration engine, based on hours of operation and the applicable emission factors, with supporting calculations;

b. Total hours of operation per year for all affected cogeneration engines based on the current month's records plus the preceding 11 months;

c. A maintenance and repair log for each affected cogeneration engine, listing each activity performed with date.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of non-compliance of an affected cogeneration engine with the operating requirements and emissions of VOM as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

a. The total emissions of NO_x, CO, PM, SO_2 in excess of the limits specified in Conditions 5.5.1 and 7.4.6 and calculated by using emission factors and equation from Condition 7.4.12 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence;

b. The total emissions of VOM in excess of the limits specified in Condition 7.4.6 and calculated by using emission factors and equation from Condition 7.4.12 based on the current month's records plus the

preceding 11 months within 30 days of such an occurrence;

c. The total hours of operation per year of all affected cogeneration engines in excess of the limits specified in Condition 7.4.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence; and

d. Notification within 60 days of operation of an affected cogeneration engine that is not in compliance with the opacity limitations of Condition 5.2.2(c).

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

a. Compliance with the VOM emission limit in Condition 7.4.3(b) is assumed to be achieved by the work-practices inherent in the operation of natural gas-fired engines, so that no compliance procedures are set in this permit addressing this regulation.

b. Compliance with the emission limits in Condition 5.5.1 and 7.4.6 shall be based on the recordkeeping requirements in Condition 7.4.9 and calculated based on the emission factors and formulas listed below:

Pollutant	Emission Factors (g/Hp-hr)
PM	0.034
NO_x	3.360
SO_2	0.002
VOM	0.176
CO	1.847

These are emission factors for natural gas combustion in a reciprocating internal combustion engine. The emission factors for NO_x, VOM, and CO are derived from source-specific tests performed in December 1995. The emission factors for PM and SO_2 are derived from FIRE Version 5.0, Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants, August 1995.

Emissions (lb) = rated power output in Hp X appropriate emission factor X total annual operating hours.

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 October 13, 1999 (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].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs applicable to this source that have been approved by USEPA.

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]:

Monitoring Period	Report Due Date
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 South 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 annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 – Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

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 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: _____

JS:psj

10.2 Attachment 2 Particulate Matter Emissions from Process Emission Units

10.2.1 Section 212.321 Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972

a. Except as further provided in 35 IAC Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.

b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

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

Where:

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

1. Up to process weight rates of 408 Mg/hr (450 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

2. For process weight rate greater than or equal to 408 Mg/hr (450 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

c. Limits for Process Emission Units For Which Construction of Modification Commenced On or After April 14,1972

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lbs/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.20	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.	3.9	10.00	8.70
13.	4.8	15.00	10.80
18.	5.7	20.00	12.50
23.	6.5	25.00	14.00
27.	7.1	30.00	15.60
32.	7.7	35.00	17.00
36.	8.2	40.00	18.20
41.	8.8	45.00	19.20
45.	9.3	50.00	20.50
90.	13.4	100.00	29.50
140.	17.0	150.00	37.00
180.	19.4	200.00	43.00
230.	22.	250.00	48.50
270.	24.	300.00	53.00
320.	26.	350.00	58.00
360.	28.	400.00	62.00
408.	30.1	450.00	66.00
454.	30.4	500.00	67.00

Where:

P = Process weight rate in Mg/hr or Ton/hr, and
E = Allowable emission rate in kg/hr or lbs/hr.

10.2.2 Section 212.322 Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972.

a. Except as further provided in 35 IAC Part 212, 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 units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.

b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

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

Where:

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

1. For process weight rates up to 27.2 Mg/hr (30 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lbs/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

2. For process weight rates in excess or 27.2 Mg/hr (30 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lbs/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

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lbs/hr
0.05	0.27	0.05	0.55

0.1	0.42	0.10	0.87
0.2	0.68	0.20	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.	8.7	10.00	19.20
13.	11.1	15.00	25.20
18.	13.8	20.00	30.50
23.	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

Where:

P = Process weight rate in Mg/hr or Ton/hr, and
E = Allowable emission rate in kg/hr or lbs/hr.

JS:ps