FINAL DRAFT/PROPOSED CAAPP PERMIT
Aventis Behring LLC
I.D. No.: 091801AAB
Permit Number: 96020048
April 11, 2001

217/782-2113

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

PERMITTEE

Aventis Behring LLC
Attn.: Samuel S. Vedder
P.O. Box 511
Kankakee, Illinois 60901-0511

Application No.: 96020048 I.D. No.: 091801AAB
Applicant's Designation: Date Received: February 13, 1996
Operation of: Pharmaceutical Manufacturing
Date Issued: TO BE DETERMINED Expiration Date[2]: DATE
Source Location: Route 50 North and Armour Road, Bradley, Kankakee County
Responsible Official: Tim Moore/V.P., General Manager

This permit is hereby granted to the above-designated Permittee to OPERATE a Pharmaceutical Manufacturing plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

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

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

DES:RWB:jar

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 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.

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

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Construction Permit (For CAAPP Sources Only)

1.0 SOURCE IDENTIFICATION

1.1 Source

Aventis Behring LLC
Route 50 North and Armour Road
Bradley, Illinois 60915
815/935-3177

I.D. No.: 091801AAB
Standard Industrial Classification: 2836, Biological Products, Except Diagnostic Substances

1.2 Owner/Parent Company

Aventis Behring LLC
1020 1st Avenue
King of Prussia, Pennsylvania 19406-1310

1.3 Operator

Aventis Behring LLC
P.O. Box 511
Kankakee, Illinois 60901-0511

Samuel S. Vedder, Environmental Manager
815/935-3177

1.4 General Source Description

Aventis Behring LLC (formerly, Centeon, LLC) is located at Route 50 North and Armour Road in Bradley. The source produces prescription and diagnostic pharmaceuticals. Products manufactured at this source include, but are not limited to, human plasma fractionation products and biochemicals from animal glands and bovine plasma. The production facility includes reactor tanks, filter presses, dryers, centrifuges, and other miscellaneous process equipment. In addition, bulk material receiving, storing, and handling are comprised of aboveground storage tanks used for storage of alcohol.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

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
ASTM	American Society for Testing and Materials
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
cu in	cubic inches
°F	degrees Fahrenheit
ft^3	cubic foot
gal	gallon
gpm	gallons per minute
gr	grains
HAP	Hazardous Air Pollutants
HMIWI	Hospital/Medical/Infectious Waste Incinerator
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
°K	degrees Kelvin
kg	kilogram
kPa	kilopascal
kW	kilowatt
l	liter
lb	pound
m^3	cubic meter
Mft^3	Million cubic feet
mg	milligrams
ml	millililiters
mmBtu	Million British thermal units
mo	month
MW	Megawatts
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter

PM_{10}	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
psi	pounds per square inch
psia	pounds per square inch absolute
RMP	Risk Management Plan
scf	standard cubic feet
scm	standard cubic meter
SIC	Standard Industrial Classification
SO_2	Sulfur Dioxide
sq. ft.	Square Feet
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
TANKS	USEPA Emission Estimating Program for Storage Tanks
TOC	Total Organic Compounds
USEPA	United States Environmental Protection Agency
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
VPL	Volatile Petroleum Liquid
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:

Chemical Pilot Plant (Building 15B)
Packaging (Building 2)
Pharmaceutical Parenteral (Building 3)
Vacuum Drying Units (except L2753, 2758, 2763, L2768, L2855, L2860, L4088, L4091, K4511, and L6300)
Vacuum Freeze Drying Units

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:

Propylene Glycol Cooling System
Propylene Glycol Heating Systems

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 lb/yr of wax to which no organic solvent has been added [35 IAC 201.210(a)(7)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

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)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

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
Alcohol Cooling	Alcohol Cooling and Circulation System (EU-1)	1995	None
Alcohol Evaporator	1,700 Gallon Buffalo Technologies Corp. Alcohol Evaporator (EU-1A)	1997	Primary and Secondary Condensers
Alcohol Pumps	Twelve (12) Precision Control Product Model DSH3951-143E Alcohol Delivery Pumps (EU-1)	Unknown	None
Boiler #1	Babcock and Wilcox Model FJ18 Natural Gas-Fired Boiler (42 mmBtu/hr, EU-9)	1950	None
Boiler #2	Babcock and Wilcox Model FJ18 Natural Gas-Fired Boiler (42 mmBtu/hr, EU-9)	1950	None
Buffer Pumps	Two (2) Precision Control Product Model DSH3951-143E Buffer Pumps (EU-1)	Unknown	None
Buffer Tanks 230 Gal	Three (3) 230 Gallon Buffer Tanks (EU-1)	Unknown	None
Buffer Tanks 250 Gal	Four (4) 250 Gallon Buffer Tanks (EU-1)	Unknown	None
Cogen Boiler	Energy Recovery Int. Waste Heat Recovery Boiler (0 mmBtu/hr, EU-10)	September, 1992	None
Cogen Duct Burner	Davis Combustion Model EP-091 Natural Gas-Fired Duct Burner (49.15 mmBtu/hr, EU-10)	September, 1992	None
Cogen Gas Turbine	Solar Turbines, Inc. Centaur Taurus Natural Gas-Fired Gas Turbine (62.8 mmBtu/hr, EU-10)	May, 1999	None
EU-4	Plasma Derivative Parenteral (Bottling and Packaging of Pharmaceutical Products)	After 1972	None
EU-7	Wastewater Treatment Plant (pH Adjustment and Triple Basin Aeration System)	December, 1972	Packed Bed Scrubber
EU-8	Goder Model #10497 Natural Gas-Fired Incinerator	1953	Secondary Combustion

	(Incinerator No. 1)		Chamber
EU-11	Nebraska Boiler/Coen Model NS-F-61 Natural Gas-Fired Boiler (96 mmBtu/hr)	September, 2000	None
Filter Press 18"	18 Inch Sperry Filter Press (EU-1)	Unknown	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Filter Press 24"	Thirteen (13) 24 Inch Sperry Filter Presses (EU-1)	Unknown	None
Filter Press Cold Room	36 Inch Sperry Model #474849 Cold Room Filter Press (EU-2)	After 1972	None
I0001	1,500 Gallon Northland Stainless Reactor Tank (#78, EU-2)	After 1972	None
I0002	1,500 Gallon Northland Stainless Reactor Tank (#80, EU-2)	After 1972	None
I003	1,500 Gallon Northland Stainless Reactor Tank (#81, EU-2)	After 1972	None
I004	1,500 Gallon Northland Stainless Reactor Tank (#77, EU-2)	After 1972	None
Ice Bath	700 Liter 3A Alcohol and Dry Ice Bath (EU-2)	Prior to 1972	None
K2263	200 Sq. Ft. Osmonics Model #420T-05 Ultrafilter (EU-2)	After 1972	None
K3674	1,190 Gallon Precision Stainless Buffer and Product Tank (#2, Gammar P-IV Production)	1993	None
K3675	1,190 Gallon Precision Stainless Buffer and Product Tank (#3, Gammar P-IV Production)	1993	None
K3676	380 Gallon Precision Stainless Ultrafiltration Tank (Gammar P-IV Production, EU-1)	1993	None
K3702	26.4 Gallon Northland Stainless 3A Alcohol Buffer Tank (Gammar P-IV Production, EU-1)	1993	None
K4425	50 Sq. Filtron Maxisette 50 AT Meter Ultrafilter (Gammar P-IV Production, EU-1)	1993	None
K6529	Letsch Corporation Model EMF-2000 Cartridge Filter	1980	None

	(Gammar P-IV Production, EU-1)		
L2753	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2758	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2763	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
Emission Unit	Description	Date Constructed	Emission Control Equipment
L2768	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2855	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2860	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L3452	1,000 Gallon Reactor (EU-2)	Unknown	None
L4088	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L4091	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L4428	7,000 Gallon Tank (#69, EU-2)	Prior to 1972	None
L4511	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L5013	42 Inch Sperry Model #M513 Filter Press (#111, EU-2)	Prior to 1972	None
L5031	1,000 Gallon Pfaudler Reactor Tank (#44, EU-2)	Prior to 1972	None
L5032	1,000 Gallon Pfaudler Reactor Tank (#45, EU-2)	Prior to 1972	None
L5041	1,000 Gallon Pfaudler Reactor Tank (#36, EU-2)	Prior to 1972	None
L5610	2,000 Gallon Will-Flow Corporation Reactor Tank (#46, EU-2)	Prior to 1972	None
L6300	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L6348	1,000 Gallon Chem-Tek Reactor Tank (#72, EU-2)	After 1972	None
L6511	20 Gallon Buchner Filter Funnel (EU-2)	Unknown	None
L6722	4,500 Gallon Walker Model #SP6463 Reactor Tank (#74, EU-2)	After 1972	None

L6723	4,500 Gallon Walker Model #SP6463 Reactor Tank (#75, EU-2)	After 1972	None
L6792	36 Inch Sperry Cold Room Filter Press (EU-2)	After 1972	None
L6985	750 Gallon Walker Model #SP6100 Reactor Tank (#33, EU-2)	After 1972	None
L6986	750 Gallon Walker Model #SP6100 Reactor Tank (#43, EU-2)	After 1972	None
L7614	100 Gallon Pfaudler Reactor (EU-2)	After 1972	None
Emission Unit	Description	Date Constructed	Emission Control Equipment
L8038	1,500 Gallon Walker Model #SP6375 Reactor Tank (#29, EU-2)	After 1972	None
L9004	12-14 gpm Pfaudler Distillation Column (EU-1)	1952	Condenser
LM 5014	42 Inch Sperry Model #M513 Filter Press (#107, EU-2)	Prior to 1972	None
LM 5015	42 Inch Sperry Model #M513 Filter Press (#104, EU-2)	Prior to 1972	None
LM5085	1,000 Gallon Reactor Tank (#28, EU-2)	Unknown	None
LM6352	1,500 Gallon Walker #SP4717 Reactor Tank (#30, EU-2)	After 1972	None
NC2807	300 Sq. Ft. Triclover Ultrafilter (EU-2)	After 1972	None
Reactor 66 Gal	66 Gallon Reactor Tank (EU-1)	Unknown	None
Reactor 132 Gal	132 Gallon Reactor Tank (EU-1)	Unknown	None
Slop Alcohol Pumps	Three (3) Grundfos Model #9438 Slop Alcohol Pumps (EU-1)	1994	None
Storage Tank #1	10,800 Gallon Pfaudler Salvage 3A Alcohol (Ethyl Alcohol/ Water) Storage Tank (EU-6)	1950	None
Storage Tank #2	10,800 Gallon Pfaudler Salvaged 3A Alcohol Storage Tank (EU-6)	1950	None
Storage	10,800 Gallon Pfaudler	1950	None

Tank #3	Recovered 3A Alcohol Storage Tank (EU-6)		
Storage Tank #4	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #5	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #6	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #7	10,800 Gallon Pfaudler New 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #8	10,800 Gallon Pfaudler New 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #19	5,000 Gallon Slop 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #20	11,200 Gallon Dairy Craft, Inc. Slop 3A Alcohol Storage Tank (EU-6)	1980	None
Emission Unit	Description	Date Constructed	Emission Control Equipment
Storage Tank #21	11,200 Gallon Dairy Craft, Inc. Slop 3A Alcohol Storage Tank (EU-6)	1980	None
Tank #1	1,506 Gallon Walker Reactor Tank (EU-1)	1971	None
Tank #2	1,506 Gallon Walker Model SP6181 Reactor Tank (EU-1)	1975	None
Tank #3	1,506 Gallon Walker Model SP6375 Reactor Tank (EU-1)	1977	None
Tank #4	2,008 Gallon DCI Reactor Tank (EU-1)	1979	None
Tank #5	2,008 Gallon DCI Reactor Tank (EU-1)	1979	None
Tank #6	2,008 Gallon DCI Reactor Tank (EU-1)	1979	None
Tank #7	1,506 Gallon Walker Model Mix 3524 Reactor Tank (EU-1)	1985	None
Tank #8	1,506 Gallon Walker Model Mix 3525 Reactor Tank (EU-1)	1985	None
Tank #9	1,506 Gallon Walker Model Mix 4436 Reactor Tank (EU-1)	1987	None
Tank #10	1,506 Gallon Walker Model Mix	1987	None

	4433 Reactor Tank (EU-1)		
Tank #11	1,506 Gallon Walker Model Mix 4434 Reactor Tank (EU-1)	1987	None
Tank #12	1,506 Gallon Walker Model Mix 4435 Reactor Tank (EU-1)	1987	None
Tank #13	1,506 Gallon Walker Reactor Tank (EU-1)	1979	None
Tank #14	1,506 Gallon Mueller Reactor Tank (EU-1)	1978	None
Tank #15	1,506 Gallon Mueller Reactor Tank (EU-1)	1978	None
Tank #16	1,506 Gallon Walker Reactor Tank (EU-1)	1979	None
Tank #17	2,496 Gallon Walker Model Mix 2000 Reactor Tank (EU-1)	1982	None
Tank #18	2,496 Gallon Walker Model Mix 2199 Reactor Tank (EU-1)	1982	None
Tank #19	2,008 Gallon Walker Model Mix 2361 Reactor Tank (EU-1)	1982	None
Tank #20	2,008 Gallon Walker Model Mix 2360 Reactor Tank (EU-1)	1982	None
Tank #21	2,496 Gallon Mueller Reactor Tank (EU-1)	1986	None
Tank #22	2,496 Gallon Mueller Reactor Tank (EU-1)	1986	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Tank #23	2,496 Gallon Mueller Reactor Tank (EU-1)	1987	None
Tank #24	2,496 Gallon Mueller Reactor Tank (EU-1)	1987	None
Tank #25	1,506 Gallon Walker Model SP6375 Reactor Tank (EU-1)	1976	None
Tank #26 (Flash)	1,000 Gallon Blaw Knox Flash Tank (EU-1)	1940	Condenser L5252
Tank #26 (Reactor)	1,506 Gallon Walker Reactor Tank (EU-1)	1977	None
Tank #27	1,506 Gallon Walker Model Mix 2362 Reactor Tank (EU-1)	1982	None
Tank #28	608 Gallon Mueller Reactor Tank (EU-1)	1983	None
Tank #29	300 Gallon DCI Reactor Tank (EU-1)	1985	None
Tank #30	415 Gallon DCI Reactor Tank (EU-1)	1993	None
Tank #33	1,585 Gallon Precision Stainless Reactor Tank (EU-1)	1993	None
Tank #34	1,585 Gallon Precision Stainless Reactor Tank (EU-1)	1993	None
Tank #36	792 Gallon DCI Mixing Tank (EU-1)	1996	None
Tank #37	792 Gallon DCI Mixing Tank (EU-1)	1996	None
Tank #38	792 Gallon DCI Mixing Tank (EU-1)	1996	None
Tank #39	2,536 Gallon DCI Reactor Tank (EU-1)	1996	None
Tank #40	2,536 Gallon DCI Reactor Tank (EU-1)	1996	None
Tank #41	2,536 Gallon DCI Reactor Tank (EU-1)	1996	None
Tank #42	2,536 Gallon DCI Reactor Tank (EU-1)	1996	None
Tank #47	1,000 Gallon Pfaudler Reactor Tank (EU-2)	Unknown	None
Tank #50	1,500 Gallon Walker Model #SP6375 Reactor Tank (EU-2)	After 1972	None
Tank #55	1,500 Gallon Walker Model	After 1972	None

	#SP6375 Reactor Tank (EU-2)		
Tank #58	1,500 Gallon Walker Model #SP6375 Reactor Tank (EU-2)	After 1972	None
Ultrafilter 450	450 Sq. Ft. Millipore Ultrafiltration System (EU-1)	Unknown	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Ultrafilter 600	600 Sq. Ft. Millipore Ultrafiltration System (EU-1)	Unknown	None
Ultrafilter 700	700 Sq. Ft. Millipore Ultrafiltration System (EU-1)	Unknown	None
Ultrafilter 2000	2000 Sq. Ft. Millipore Ultrafiltration System (EU-1)	Unknown	None
Fugitive PM Emissions	Paved Traffic Areas, Parking Lots, and Roadways	-------	None
Fugitive VOM Emissions	Deconahol Aerosol Usage	-------	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. 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.

5.2.3 Ozone Depleting Substances

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

a. This stationary source, as defined in 40 CFR Section 68.3, is subject to 40 CFR Part 68, the Accidental Release Prevention regulations [40 CFR 68.215(a)(1)].

b. The owner or operator of a stationary source shall revise and update the RMP submitted, as specified in 40 CFR 68.190.

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 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The source must submit a CAM plan for each affected pollutant-specific emissions unit upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of

the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

5.3.1 This permit is issued based on the source not being subject to the NESHAP for Pharmaceuticals Production, 40 CFR 63 Subparts A and GGG, because the source is not a major source of HAPs. (See also Condition 5.5.)

5.3.2 This permit is issued based on the source not being subject to 35 IAC 215.483, Pharmaceutical Manufacturing Material Storage and Transfer, because the source does not have any storage tanks that store volatile organic liquids with vapor pressures greater than 10 kPa (1.5 psi) at 294.3°K (70°F).

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:

5.4.1 The owner or operator shall install covers on all in-process tanks used to manufacture pharmaceuticals and containing a volatile organic liquid at any time. These covers must remain closed, except as production, sampling, maintenance, or inspection procedures require operator access [35 IAC 215.484].

5.4.2 The owner or operator of a pharmaceutical manufacturing plant shall repair any component from which a leak of volatile organic liquid can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found. If the leaking component cannot be repaired until the process unit is shut down, the leaking component must then be repaired before the unit is restarted [35 IAC 215.485].

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_x)	77.20
Particulate Matter (PM)	10.14
Sulfur Dioxide (SO_2)	0.64
Volatile Organic Material (VOM)	318.40
HAP, not included in VOM or PM	------
TOTAL	406.38

5.5.2 Emissions of Hazardous Air Pollutants

The emissions of HAPs from the source shall be less than 10 tons/year for each individual HAP and 25 tons/year for all HAPs combined. Compliance with these limits shall be based on a running total of 12 months of data, with emissions calculated using standard USEPA methodology.

This condition is being imposed at the request of the Permittee so that the source is not a major source of HAP emissions and the requirements of 40 CFR 63 Subpart GGG - National Emission Standards for Pharmaceuticals Production do not apply to the source.

5.5.3 Other Source-Wide Emission Limitations

a. i. Total source-wide emissions of all volatile organic materials (VOM) from both process and fugitive activities combined shall not exceed 327 tons/year as further described in Attachment 1.

ii. Total source-wide emissions of VOM from the usage of 3A alcohol from both process and fugitive activities combined shall not exceed 318 tons/year.

iii. The allowable volume of 3A alcohol which may

be emitted on a source-wide basis shall not exceed the following limits:

3A Alcohol Emissions	
(Gallons/Month)	(Gallons/Year)
8,000	95,783

These limits are based on the maximum alcohol emissions determined from records of fresh 3A alcohol used, minus alcohol recovered for resale, minus quantity sent to wastewater discharge, minus other miscellaneous waste streams.

iv. The limits on VOM are limitations established in Permit 96040093, 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. See Condition 7.1.6 [T1].

b. Emissions of NO_x from the Gas Turbine, Duct Burner, and the New Boiler (EU-11) shall not exceed 77.25 tons/year, combined.

i. This limit is based on an increase of 39.0 tons/year in emissions of NO_x above the baseline emissions described in Table 2 of Attachment 2.

ii. The above limitations are being established in this permit pursuant to 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). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the NO_x emissions from the affected Gas Turbine, Duct Burner and New Boiler (EU-11) below the levels

that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application [T1N].

c. 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).

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 General Records for Fugitive Emissions from Road Dust

a. The Permittee shall maintain a record of the maximum aggregate annual emissions of fugitive PM from the traffic areas at the source (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 roadways or parking areas or other permanent change to the source, that alters the maximum aggregate emissions of PM.

5.6.3 Records for 3A Alcohol Usage

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.3, pursuant to Section 39.5(7)(b) of the Act:

a. Quantity of fresh alcohol used, gal/mo and gal/yr;

b. Quantities and types of other volatile organic liquid used, gal/mo and gal/yr;

c. Quantity of alcohol sent to wastewater treatment, gal/mo and gal/yr;

d. Quantity of alcohol sent off site for resale, gal/mo and gal/yr; and

e. The Permittee shall maintain a record of the maximum aggregate annual emissions of fugitive VOM and HAP from the usage of 3A alcohol estimated based on the material usage and the amount of VOM and HAP contained in 3A alcohol, as specified by Condition 5.9.2, with supporting calculations, so as to demonstrate compliance with the limits in Condition 5.5.

5.6.4 General Records for Fugitive Emissions from Deconahol Aerosol Usage

a. The Permittee shall maintain records of the Deconahol Aerosol usage, lb/mo and ton/yr;

b. The Permittee shall maintain records of the VOM content and the HAP content for the Deconahol Aerosol, % by wt.;

c. The Permittee shall maintain a record of the maximum aggregate annual emissions of fugitive VOM and HAP from the usage of Deconahol Aerosol estimated based on the material usage and the amount of VOM and HAP contained in the Deconahol Aerosol, as specified by Condition 5.9.3, with supporting calculations, so as to demonstrate compliance with the limits in Condition 5.5.

5.6.5 Records for VOM and HAP Emissions

The Permittee shall maintain records of the following items for the source to verify that the source is not a major source of HAP emissions and therefore not subject to 40 CFR Part 63, Subpart GGG, and to quantify annual VOM emissions, so as to demonstrate compliance with the annual emission limits in Condition 5.5:

a. General Records:

i. The name and identification of each HAP containing material; and

ii. The HAP content of each HAP containing material, % by wt.

b. Records maintained on a monthly basis for the previous month:

i. Usage of each HAP containing material, lb/mo and ton/yr; and

ii. The monthly and aggregate annual HAP emissions from the usage of all such HAP containing materials at the source, with supporting calculations.

5.6.6 Records for Leak Detection Monitoring:

Pursuant to 35 IAC 215.489(b), for any leak subject to Condition 5.4.2 (see also 35 IAC 215.485) which cannot be readily repaired within one hour after detection, the following records shall be kept:

a. The name of the leaking equipment [35 IAC 215.489(b)(1)];

b. The date and time the leak is detected [35 IAC 215.489(b)(2)];

c. The action taken to repair the leak [35 IAC 215.489(b)(3)]; and

d. The date and time the leak is repaired [35 IAC 215.489(b)(4)].

5.6.7 Records for Pharmaceutical Manufacturing

a. Pursuant to 35 IAC 215.489(c), the following records shall be kept for emission units subject to Condition 5.4.1 (see also 35 IAC 215.484) which contain volatile organic liquid:

i. For maintenance and inspection:

A. The date and time each cover is opened [35 IAC 215.489(c)(1)(A)];

B. The length of time the cover remains open [35 IAC 215.489(c)(1)(B)]; and

C. The reason why the cover is opened [35 IAC 215.489(c)(1)(C)].

ii. For production and sampling, detailed written procedures or manufacturing directions specifying the circumstances under which covers may be opened and the procedures for opening covers [35 IAC 215.489(c)(2)].

b. Pursuant to 35 IAC 215.489(d), for each emission unit used in the manufacture of pharmaceuticals for which the owner or operator of a pharmaceutical manufacturing source claims emission standards are not applicable, because the emissions are below the applicability cutoffs in 35 IAC 215.480(a), the owner or operator shall:

i. Maintain a demonstration including detailed engineering calculations of the maximum daily and annual emissions for each such emission unit showing that the emissions are below the applicability cutoffs in 35 IAC 215.480(a) for the current and prior calendar years [35 IAC 215.489(d)(1)]; and

ii. Maintain appropriate operating records for each such emission source to identify whether the applicability cutoffs in 35 IAC 215.480(a) are ever exceeded [35 IAC 215.489(d)(2)].

c. Copies of these records shall be made available to the Illinois EPA or the USEPA upon verbal or written request [35 IAC 218.489(f)].

5.6.8 NSPS Recordkeeping

Any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the

operation of an affected facility [40 CFR 60.7(b)]

5.6.9 Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the monthly and aggregate annual NO_x emissions from the Gas Turbine, Duct Burner, and the New Boiler (EU-11), combined to demonstrate compliance with Condition 5.5.3(b), based on the fuel consumption records in Conditions 7.9.9(d) and 7.10.9(b) and the applicable emission factors listed in Conditions 7.9.12(b) and 7.10.12(b).

5.6.10 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 deviations of the source 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.

5.7.3 Annual Reporting of HAP Emissions

The Permittee shall submit an annual report to the Illinois EPA, Compliance Section, on HAP emissions from the source, including the following information, so as to demonstrate whether the source is being operated as a non-major source of HAP emissions. This report shall be submitted with the Annual Emissions Report (Condition 9.7).

a. The annual emissions of individual HAPs for each month of the previous calendar year sufficient to

demonstrate compliance with the 12 month running total of Condition 5.5.2, tons/year, (e.g., for the month of January, the emissions from February of the preceding calendar year through January; for the month of February, the emissions from March of the preceding calendar year through February; 12 months in all); and

b. The total annual emissions of all HAPs combined for each month of the previous calendar year sufficient to demonstrate compliance with the 12 month running total of Condition 5.5.2, tons/year, (e.g., for the month of January, the emissions from February of the preceding calendar year through January; for the month of February, the emissions from March of the preceding calendar year through February; 12 months in all).

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

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 the use of USEPA approved emissions estimating guidance.

5.9.1 General Procedures for Calculating Fugitive Emissions from Roadways

For the purpose of estimating fugitive PM emissions from the paved roadways at the source, the emission factors and formulas in Sections 13.2.1 of AP-42, Volume I, Fifth Edition, Supplement D, October, 1997 are acceptable.

5.9.2 General Procedures for Calculating VOM Emissions from 3A Alcohol Usage

To determine compliance with Conditions 5.5.1 and 5.5.3, VOM emissions from the usage of 3A Alcohol shall be calculated based on the following:

i. By volume:

VOM Emissions (gal) = (3A Alcohol Usage, gal) - (Alcohol Recovered for Resale, gal) - (Alcohol Sent to Wastewater Discharge, gal) - (Other Miscellaneous Waste Streams, gal)

ii. By weight:

VOM Emissions (lb) = (VOM Emissions, gal) x (Alcohol Density, lb/gal)

5.9.3 General Procedures for Calculating Fugitive Emissions from Deconahol Aerosol Usage

To determine compliance with Condition 5.5.1, VOM emissions from the usage of Deconahol Aerosol shall be calculated based on the following:

VOM Emissions (lb) = (Deconahol Aerosol Usage, lb) x (VOM Content, % by wt.)

6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Units EU-1 Coagulation Manufacturing and Plasma Fractionation
Controls EU-1 Condenser

7.1.1 Description

A major portion of the source's business consists of the manufacture of products from human plasma. Three departments are involved in the manufacture of these products: Coagulation Manufacturing, Plasma Fractionation, Parenteral. Coagulation Manufacturing and Plasma Fractionation use a mixture of ethanol, methanol, and water in manufacturing and also as a sterilizing agent and general clean-up solvent. Typical production includes the use of stainless steel reactor tanks to hold, mix, and react product intermediates (typical reactions include precipitations), and to mix and hold buffers. Reactor tanks are maintained at reduced temperatures. Cooling of the product is provided by processing in cold rooms and by cooling jackets and baffles on the reactor tanks that circulate an alcohol chilling agent in a closed-loop system.

After precipitations, filter presses are used to separate solids from liquids. Either the solid, liquid, or both go on for further processing. Waste solids removed by the filter press are incinerated offsite. Waste liquids are sent for alcohol recovery if alcohol is present in a high enough concentration. Liquids with low concentrations of alcohol are discharged directly to the wastewater treatment plant. Filter presses are also operated at reduced temperatures.

Alcohol used in the cooling and circulation system is piped from the storage tank system to a refrigerant-chilled heat exchanger system where it is cooled. It is then circulated through the Plasma Fractionation department. Process alcohol is delivered from the alcohol storage tanks into reactor tanks and portable tanks using alcohol pumps. Buffer pumps deliver buffer for pre-washing and post-washing tanks and filters. Ultrafilters are used to separate product from wastes, based on molecular size. Waste liquids from the ultrafilters are sent for alcohol recovery if the alcohol content is above 5%. Otherwise, these materials are discharged to the

wastewater treatment plant.

The production of pasteurized Gammar P-IV, which is a subgroup of Plasma Fractionation, derives immune globulin products from human plasma using extraction and purification techniques. This process uses a small amount of the diluted ethanol, methanol, and water mixture to precipitate out impurities. The alcohol is subsequently removed by ultrafiltration and discharged to the wastewater treatment plant. Production equipment in this department includes alcohol reactor tanks, buffer tanks, cartridge filters, and ultrafilters.

The distillation column is a bubble cap column with the condenser located on the roof of the production building. Salvaged alcohol is fed into the column. A boiler is used to heat the steam that evaporates the alcohol at the base of the unit. Process water is used for the condenser at the top of the column. A glycol cooled secondary condenser traps volatiles that pass through the primary condenser. The still bottoms are discharged directly to the wastewater treatment plant.

7.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Alcohol Cooling	Alcohol Cooling and Circulation System	None
Alcohol Pumps	Twelve (12) Precision Control Product Model DSH3951-143E Alcohol Delivery Pumps	None
Buffer Pumps	Two (2) Precision Control Product Model DSH3951-143E Buffer Pumps	None
Buffer Tanks 230 Gal	Three (3) 230 Gallon Buffer Tanks	None
Buffer Tanks 250 Gal	Four (4) 250 Gallon Buffer Tanks	None
Filter Press 18"	18 Inch Sperry Filter Press	None
Filter Press 24"	Thirteen (13) 24 Inch Sperry Filter Presses	None

K3674	1,190 Gallon Precision Stainless Buffer and Product Tank (#2, Gammar P-IV Production)	None
K3675	1,190 Gallon Precision Stainless Buffer and Product Tank (#3, Gammar P-IV Production)	None
K3676	380 Gallon Precision Stainless Ultrafiltration Tank (Gammar P-IV Production)	None
K3702	26.4 Gallon Northland Stainless 3A Alcohol Buffer Tank (Gammar P-IV Production)	None

Emission Unit	Description	Emission Control Equipment
K4425	50 Sq. Meter Filtron Maxisette 50 AT Ultrafilter (Gammar P-IV Production)	None
K6529	Letsch Corporation Model EMF-2000 Cartridge Filter (Gammar P-IV Production)	None
L9004	12-14 gpm Pfaudler Distillation Column	Condenser
Reactor 66 Gal	66 Gallon Reactor Tank	None
Reactor 132 Gal	132 Gallon Reactor Tank	None
Slop Alcohol Pumps	Three (3) Grundfos Model #9438 Slop Alcohol Pumps	None
Tank #1	1,506 Gallon Walker Reactor Tank	None
Tank #2	1,506 Gallon Walker Model SP6181 Reactor Tank	None
Tank #3	1,506 Gallon Walker Model SP6375 Reactor Tank	None
Tank #4	2,008 Gallon DCI Reactor Tank	None
Tank #5	2,008 Gallon DCI Reactor Tank	None
Tank #6	2,008 Gallon DCI Reactor Tank	None
Tank #7	1,506 Gallon Walker Model Mix 3524 Reactor Tank	None
Tank #8	1,506 Gallon Walker Model Mix 3525 Reactor Tank	None
Tank #9	1,506 Gallon Walker Model Mix 4436 Reactor Tank	None
Tank #10	1,506 Gallon Walker Model Mix 4433 Reactor Tank	None
Tank #11	1,506 Gallon Walker Model Mix 4434 Reactor Tank	None
Tank #12	1,506 Gallon Walker Model Mix 4435 Reactor Tank	None
Tank #13	1,506 Gallon Walker Reactor Tank	None
Tank #14	1,506 Gallon Mueller Reactor Tank	None
Tank #15	1,506 Gallon Mueller Reactor Tank	None
Tank #16	1,506 Gallon Walker Reactor Tank	None
Tank #17	2,496 Gallon Walker Model Mix 2000	None

	Reactor Tank	
Tank #18	2,496 Gallon Walker Model Mix 2199 Reactor Tank	None
Tank #19	2,008 Gallon Walker Model Mix 2361 Reactor Tank	None
Tank #20	2,008 Gallon Walker Model Mix 2360 Reactor Tank	None
Emission Unit	Description	Emission Control Equipment
Tank #21	2,496 Gallon Mueller Reactor Tank	None
Tank #22	2,496 Gallon Mueller Reactor Tank	None
Tank #23	2,496 Gallon Mueller Reactor Tank	None
Tank #24	2,496 Gallon Mueller Reactor Tank	None
Tank #25	1,506 Gallon Walker Model SP6375 Reactor Tank	None
Tank #26 (Flash)	1,000 Gallon Blaw Knox Flash Tank	Condenser L5252
Tank #26 (Reactor)	1,506 Gallon Walker Reactor Tank	None
Tank #27	1,506 Gallon Walker Model Mix 2362 Reactor Tank	None
Tank #28	608 Gallon Mueller Reactor Tank	None
Tank #29	300 Gallon DCI Reactor Tank	None
Tank #30	415 Gallon DCI Reactor Tank	None
Tank #33	1,585 Gallon Precision Stainless Reactor Tank	None
Tank #34	1,585 Gallon Precision Stainless Reactor Tank	None
Tank #36	792 Gallon DCI Mixing Tank	None
Tank #37	792 Gallon DCI Mixing Tank	None
Tank #38	792 Gallon DCI Mixing Tank	None
Tank #39	2,536 Gallon DCI Reactor Tank	None
Tank #40	2,536 Gallon DCI Reactor Tank	None
Tank #41	2,536 Gallon DCI Reactor Tank	None
Tank #42	2,536 Gallon DCI Reactor Tank	None
Ultra-Filter 450	450 Sq. Ft. Millipore Ultrafiltration System	None
Ultra-Filter 600	600 Sq. Ft. Millipore Ultrafiltration System	None
Ultra-Filter 700	700 Sq. Ft. Millipore Ultrafiltration System	None
Ultra-Filter	2000 Sq. Ft. Millipore Ultrafiltration System	None

2000		

7.1.3 Applicability Provisions and Applicable Regulations

a. The Coagulation Manufacturing and Plasma Fractionation equipment listed in Condition 7.1.2 are “affected pharmaceutical manufacturing units” for the purpose of these unit-specific conditions.

b. The affected pharmaceutical product manufacturing units are subject to 35 IAC 215 Subpart K, Use of Organic Material, which provides that:

i. 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 Condition 7.1.3(b)(ii) (see also 35 IAC 215.302), 35 IAC 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 215.301].

ii. Pursuant to 35 IAC 215.302, emissions of organic material in excess of those permitted by Condition 7.1.3(b)(i) (see also 35 IAC 215.301) are allowable if such emissions are controlled by one of the following methods:

A. A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere [35 IAC 215.302(b)]; or

B. Any other air pollution control equipment approved by the Illinois EPA and approved by the USEPA as a SIP revision capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere [35 IAC 215.302(c)].

7.1.4 Non-Applicability of Regulations of Concern

a. The affected pharmaceutical manufacturing units are not subject to the NESHAP for Pharmaceuticals Production, 40 CFR 63 Subparts A and GGG, because the source is not a major source of HAPs.

b. The affected pharmaceutical manufacturing units are not subject to the control requirements of 35 IAC 215 Subpart T, because pursuant to 35 IAC 215.480(a), the rules of 35 IAC 215 Subpart T, Pharmaceutical Manufacturing, except for 35 IAC 215.483 through 215.485, apply to all emission units of volatile organic material, including but not limited to reactors, distillation units, dryers, storage tanks for volatile organic liquids, equipment for the transfer of volatile organic liquids, filters, crystallizers, washers, laboratory hoods, pharmaceutical coating operations, mixing operations and centrifuges used in manufacturing, including packaging, of pharmaceuticals, and emitting more than 6.8 kg/day (15 lb/day) and more than 2,268 kg/year (2.5 tons/year) of volatile organic material. If such an emission unit emits less than 2,268 kg/year (2.5 tons/year) of volatile organic material, the requirements of 35 IAC 215 Subpart T, except for 35 IAC 215.483 through 215.485, still apply to the emission unit if volatile organic material emissions from the emission unit exceed 45.4 kg/day (100 lb/day).

7.1.5 Operational and Production Limits and Work Practices

a. The owner or operator shall install covers on all in-process tanks used to manufacture pharmaceuticals and containing a volatile organic liquid at any time. These covers must remain closed, except as production, sampling, maintenance or inspection procedures require operator access [35 IAC 215.484].

b. The owner or operator of a pharmaceutical manufacturing source shall repair any component from which a leak of volatile organic liquid can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found. If the leaking component cannot be repaired until the process unit is shut down, the leaking

component must then be repaired before the unit is restarted [35 IAC 215.485].

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

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected pharmaceutical manufacturing units are subject to the following:

a. Emissions of volatile organic material (VOM) from four reactor tanks (Reactor Tanks #39, #40, #41, and #42) and three mixing tanks (Mixing Tanks #36, #37, and #38) combined along with associated VOM emissions resulting from a 15% potential increase in plant production, shall not exceed 26 tons/year.

b. The above limitations were established in Permit 96040093, 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].

c. 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).

7.1.7 Testing Requirements

a. Upon reasonable request by the Illinois EPA pursuant to 35 IAC 215.487(a), the owner or operator of any volatile organic material emission source subject to 35 IAC 215 Subpart T or exempted from 35 IAC 215 Subpart T by provisions of Condition 7.1.4(b) (see also 215.480(a)) or 35 IAC 215.480(c) shall, at his own expense, demonstrate compliance to the Illinois

EPA by methods or procedures listed in Condition 7.1.7(b) (see also 35 IAC 215.487(c)); and

b. Pursuant to 35 IAC 215.487(c), test procedures to determine compliance with and applicability of 35 IAC 215 Subpart T are in 40 CFR Part 60, Appendix A and shall be used as delineated below:

i. 40 CFR 60, Appendix A, Methods 18, 25 or 25A, as appropriate to the conditions at the site, shall be used to determine VOM concentration. Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in 35 IAC 215.487(c)(1)(A) and (c)(1)(B), the test shall consist of three separate runs, each lasting a minimum of 60 minutes, unless the Illinois EPA determines that process variables dictate shorter sampling times [35 IAC 215.487(c)(1)].

ii. 40 CFR Part 60, Appendix A, Method 1 or 1A shall be used for sample and velocity traverses [35 IAC 215.487(c)(2)].

iii. 40 CFR Part 60, Appendix A, Method 2, 2A, 2C or 2D shall be used for velocity and volumetric flow rates [35 IAC 215.487(c)(3)].

iv. 40 CFR Part 60, Appendix A, Method 3 shall be used for gas analysis [35 IAC 215.487(c)(4)].

v. 40 CFR Part 60, Appendix A, Method 4 shall be used for stack gas moisture [35 IAC 215.487(c)(5)].

vi. 40 CFR Part 60, Appendix A, Methods 2, 2A, 2C, 2D, 3 and 4 shall be performed, as applicable, at least twice during each test run [35 IAC 215.487(c)(6)].

7.1.8 Monitoring Requirements

None

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 each affected pharmaceutical manufacturing unit to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.1.3, 7.1.4(b), and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of the affected pharmaceutical manufacturing units pursuant to Condition 7.1.7, which include the following [Section 39.5(7)(e) of the Act]:

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

ii. The date(s) analyses were performed;

iii. The company or entity that performed the analyses;

iv. The analytical techniques or methods used;

v. The results of such analyses; and

vi. The operating conditions as existing at the time of sampling or measurement.

b. Pursuant to 35 IAC 215.489(b), for any leak subject to Condition 7.1.5(b) (see also 35 IAC 215.485) which cannot be readily repaired within one hour after detection, the following records shall be kept:

i. The name of the leaking equipment [35 IAC 215.489(b)(1)].

ii. The date and time the leak is detected [35 IAC 215.489(b)(2)].

iii. The action taken to repair the leak [35 IAC 215.489(b)(3)].

iv. The date and time the leak is repaired [35 IAC 215.489(b)(4)].

c. Pursuant to 35 IAC 215.489(c), the following records shall be kept for emission sources subject to Condition 7.1.5(a) (see also 35 IAC 215.484) which contain volatile organic liquid:

i. For maintenance and inspection:

A. The date and time each cover is opened [35 IAC 215.489(c)(1)(A)].

B. The length of time the cover remains open [35 IAC 215.489(c)(1)(B)].

C. The reason why the cover is opened [35 IAC 215.489(c)(1)(C)].

ii. For production and sampling, written procedures or manufacturing directions specifying the circumstances under which covers may be opened and the procedures for opening covers [35 IAC 215.489(c)(2)].

d. Pursuant to 35 IAC 215.489(d), for each emission source used in manufacture of pharmaceuticals for which the owner or operator of a pharmaceutical manufacturing plant claims emission standards are not applicable because the emissions are below the applicability cutoff in Condition 7.1.4(b) (see also 35 IAC 215.480(a)), the owner or operator shall:

i. Maintain a demonstration, including detailed engineering calculations, of the maximum daily and annual emissions for each such emission source showing that the emissions are below the applicability cutoffs in Condition 7.1.4(b) (see also 35 IAC 215.480(a)) for the current and prior calendar years [35 IAC 215.489(d)(1)]; and

ii. Maintain operating records for each emission source to identify whether the cutoffs in Condition 7.1.4(b) (see also 35 IAC 215.480(a)) are ever exceeded [35 IAC 215.489(d)(2)].

e. Records required under this Condition (see also 35 IAC 215.489) shall be maintained by the owner or operator for a minimum of two years after the date on which they are made [35 IAC 215.489(e)].

f. Copies of the records shall be made available to the Illinois EPA upon verbal or written request [35 IAC 215.489(f)].

g. Records addressing use of good operating practices for the condenser:

i. Records for periodic inspection of the condenser 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.

h. Denatured ethanol usage for the affected pharmaceutical manufacturing units, lb/mo and ton/yr;

i. The amount of plasma processed using the affected pharmaceutical manufacturing units, lb/mo and ton/yr;

j. The operating schedule of the affected pharmaceutical manufacturing units or number of hours the affected pharmaceutical manufacturing units have been operated; and

k. The monthly and aggregate annual VOM and HAP emissions from the affected pharmaceutical manufacturing units based on the denatured ethanol usage, the amount of plasma processed and air pollution control equipment efficiencies, with supporting calculations.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected pharmaceutical 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. A person planning to conduct a volatile organic material emissions test to demonstrate compliance with or determine applicability of provisions of 35 IAC 215 Subpart T shall notify the Illinois EPA of that intent to test not less than 30 calendar days prior to the planned initiation of the test [35 IAC 218.487(b)].

b. For each emission unit used in the manufacture of pharmaceuticals for which the owner or operator of a pharmaceutical manufacturing source claims emission standards are not applicable, because the emissions are below the applicability cutoffs in Condition 7.1.4(b) (see also 35 IAC 215.480(a)), the owner or operator shall provide written notification to the Illinois EPA within 30 days of a determination that such an emissions source has exceeded the applicability cutoff of Condition 7.1.4(b) (see also 35 IAC 215.480(a)) [35 IAC 215.489(d)(3)].

c. Emissions of VOM, in excess of the limits in Conditions 5.5.3, 7.1.3, and/or 7.1.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

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. Determinations of daily and/or annual emissions:

i. Pursuant to 35 IAC 215.480(h)(1), determinations of daily and/or annual emissions for purposes of 35 IAC 218.480 shall be made using:

A. Data on the hourly emission rate or the emission per unit of throughput [35 IAC 215.480(h)(1)(A)]; and

B. Appropriate daily and annual data from records of emission source operation or material throughput, or material consumption [35 IAC 215.480(h)(1)(B)].

ii. In the absence of representative test data pursuant to Condition 7.1.7 (see also 35 IAC 215.487) for the hourly emission rate or emission rate per unit of throughput, such items shall be determined using engineering calculations, including the methods described in Appendix B of "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" [35 IAC 215.480(h)(2)].

b. To determine compliance with Conditions 5.5.1, 5.5.3, 7.1.3(b), and 7.1.6, VOM emissions from the affected pharmaceutical manufacturing units, calculations based on the formulas and procedures listed in Appendix B of "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" (EPA-450/2-78-029) are acceptable.

7.2 Unit EU-1A Alcohol Evaporator
Control EU-1A Primary and Secondary Condensers

7.2.1 Description

A flash evaporator with condenser uses heating and vacuum to strip alcohol and water from spent alcohol. The flash tank receives spent alcohol until it is full and all alcohol has been flashed-off. The remaining wastewater is discharged to the wastewater treatment plant. Process water is used as the cooling source for the condenser that operates at a vacuum. A glycol cooled secondary condenser traps volatiles that pass through the primary condenser. The salvaged alcohol generated from this process is pumped to the distillation column or to the tank farm for storage prior to distillation.

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Alcohol Evaporator	1,700 Gallon Buffalo Technologies Corp. Alcohol Evaporator	Primary and Secondary Condensers

7.2.3 Applicability Provisions and Applicable Regulations

a. The Alcohol Evaporator listed in Condition 7.2.2 is an “affected evaporator” for the purpose of these unit-specific conditions.

b. The affected evaporator is subject to 35 IAC 215 Subpart K, Use of Organic Material, which provides that:

i. 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 Condition 7.2.3(b)(ii) (see also 35 IAC 215.302), 35 IAC 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 215.301].

ii. Pursuant to 35 IAC 215.302, emissions of organic material in excess of those permitted by Condition 7.2.3(b)(i) (see also 35 IAC 215.301) are allowable if such emissions are controlled by one of the following methods:

A. A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere [35 IAC 215.302(b)]; or

B. Any other air pollution control equipment approved by the Illinois EPA and approved by the USEPA as a SIP revision capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere [35 IAC 215.302(c)].

c. The affected evaporator is subject to 35 IAC 215 Subpart T, Pharmaceutical Manufacturing, which provides that, pursuant to 35 IAC 215.481(a)(1)(E), the owner or operator shall equip all reactors, distillation units, crystallizers, centrifuges and vacuum dryers that are used to manufacture pharmaceuticals with surface condensers or other air pollution control equipment listed in 35 IAC 215.481(a)(2). If a surface condenser is used, it shall be operated such that the condenser outlet gas temperature does not exceed 298.2°K (77°F) when condensing volatile organic material of vapor pressure greater than 3.45 kPa (0.5 psi) at 294.3°K (70°F).

7.2.4 Non-Applicability of Regulations of Concern

The affected evaporator is not subject to the NESHAP for Pharmaceuticals Production, 40 CFR 63 Subparts A and GGG, because the source is not a major source of HAPs.

7.2.5 Operational and Production Limits and Work Practices

a. Emissions subject to 35 IAC 215 Subpart T shall be controlled at all times, consistent with the requirements set forth in 35 IAC 215 Subpart T [35 IAC 215.480(e)].

b. If a pharmaceutical manufacturing emission source becomes subject to the provisions of Condition 7.2.3(c) (see also 35 IAC 215.481), 215.482 or 215.486 on or after the compliance date specified in 35 IAC 215.490(a), the requirements of such Condition 7.2.3(c) shall continue to apply to the emission source even if there is a reduction in emissions as to be below the applicability criteria of 35 IAC 215.480 [35 IAC 215.480(g)].

c. The owner or operator shall install covers on all in-process tanks used to manufacture pharmaceuticals and containing a volatile organic liquid at any time. These covers must remain closed, except as production, sampling, maintenance or inspection procedures require operator access [35 IAC 215.484].

d. The owner or operator of a pharmaceutical manufacturing source shall repair any component from which a leak of volatile organic liquid can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found. If the leaking component cannot be repaired until the process unit is shut down, the leaking component must then be repaired before the unit is restarted [35 IAC 215.485].

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

7.2.6 Emission Limitations

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

a. Emissions of VOM from the alcohol evaporator system, shall not exceed the following limitations:

VOM Emissions	
(lb/mo)	(ton/yr)
5,500	33.0

These limits are based on the maximum alcohol consumption indicated in Condition 7.3.6(a) and the associated maximum emissions of VOM from the alcohol evaporator system.

b. The above limitations were established in Permit 961200044, 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].

c. 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).

7.2.7 Testing Requirements

a. Upon reasonable request by the Illinois EPA pursuant to 35 IAC 215.487(a), the owner or operator of any volatile organic material emission source subject to 35 IAC 215 Subpart T or exempted from 35 IAC 215 Subpart T by 215.480(a) or (c) shall, at his own expense, demonstrate compliance to the Illinois EPA by methods or procedures listed in Condition 7.2.7(b) (see also 35 IAC 215.487(c)); and

b. Pursuant to 35 IAC 215.487(c), test procedures to determine compliance with and applicability of 35 IAC 215 Subpart T are in 40 CFR Part 60, Appendix A and shall be used as delineated below:

i. 40 CFR 60, Appendix A, Methods 18, 25 or 25A, as appropriate to the conditions at the site, shall be used to determine VOM concentration. Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in 35 IAC 215.487(c)(1)(A) and (c)(1)(B), the test shall consist of three separate runs,

each lasting a minimum of 60 minutes, unless the Illinois EPA determines that process variables dictate shorter sampling times [35 IAC 215.487(c)(1)].

ii. 40 CFR Part 60, Appendix A, Method 1 or 1A shall be used for sample and velocity traverses [35 IAC 215.487(c)(2)].

iii. 40 CFR Part 60, Appendix A, Method 2, 2A, 2C or 2D shall be used for velocity and volumetric flow rates [35 IAC 215.487(c)(3)].

iv. 40 CFR Part 60, Appendix A, Method 3 shall be used for gas analysis [35 IAC 215.487(c)(4)].

v. 40 CFR Part 60, Appendix A, Method 4 shall be used for stack gas moisture [35 IAC 215.487(c)(5)].

vi. 40 CFR Part 60, Appendix A, Methods 2, 2A, 2C, 2D, 3 and 4 shall be performed, as applicable, at least twice during each test run [35 IAC 215.487(c)(6)].

7.2.8 Monitoring Requirements

a. Pursuant to 35 IAC 215.488(a), at a minimum, continuous monitors for the following parameters shall be installed on air pollution control equipment subject to 35 IAC 215 Subpart T:

i. Outlet gas temperature of a refrigerated condenser [35 IAC 215.488(a)(4)];

ii. Temperature of a non-refrigerated condenser coolant supply system [35 IAC 215.488(a)(5)].

b. Each monitor shall be equipped with a recording device [35 IAC 215.488(b)].

c. Each monitor shall be calibrated quarterly [35 IAC 215.488(c)].

d. Each monitor shall operate at all times while the associated control equipment is operating [35 IAC 215.488(d)].

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 each affected pharmaceutical manufacturing unit to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.2.3, and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of the efficiency of each capture system and control device pursuant to Condition 7.2.7, which include the following [Section 39.5(7)(e) of the Act]:

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

ii. The date(s) analyses were performed;

iii. The company or entity that performed the analyses;

iv. The analytical techniques or methods used;

v. The results of such analyses; and

vi. The operating conditions as existing at the time of sampling or measurement.

b. Pursuant to 35 IAC 218.489(a), the owner or operator of a pharmaceutical manufacturing plant shall maintain the following records:

i. The parameters listed in Condition 7.2.8 (see also 35 IAC 215.488) shall be recorded [35 IAC 215.489(a)(1)].

ii. For sources subject to Condition 7.2.3(c) (see also 35 IAC 215.481), the vapor pressure of the volatile organic material being controlled shall be recorded for every process [35 IAC 215.489(a)(2)].

c. Pursuant to 35 IAC 215.489(b), for any leak subject to Condition 7.2.5(d) (see also 35 IAC 215.485) which cannot be readily repaired within one hour after detection, the following records shall be kept:

i. The name of the leaking equipment [35 IAC 215.489(b)(1)].

ii. The date and time the leak is detected [35 IAC 215.489(b)(2)].

iii. The action taken to repair the leak [35 IAC 215.489(b)(3)].

iv. The date and time the leak is repaired [35 IAC 215.489(b)(4)].

d. Pursuant to 35 IAC 215.489(c), the following records shall be kept for emission sources subject to Condition 7.2.5(c) (see also 35 IAC 215.484) which contain volatile organic liquid:

i. For maintenance and inspection:

A. The date and time each cover is opened [35 IAC 215.489(c)(1)(A)].

B. The length of time the cover remains open [35 IAC 215.489(c)(1)(B)].

C. The reason why the cover is opened [35 IAC 215.489(c)(1)(C)].

ii. For production and sampling, written procedures or manufacturing directions specifying the circumstances under which covers may be opened and the procedures for opening covers [35 IAC 215.489(c)(2)].

e. Records required under this Condition (see also 35 IAC 215.489) shall be maintained by the owner or operator for a minimum of two years after the date on which they are made [35 IAC 215.489(e)].

f. Copies of the records shall be made available to the Illinois EPA upon verbal or written request [35 IAC 215.489(f)].

g. Records addressing use of good operating practices for the condensers:

i. Records for periodic inspection of the condensers 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.

h. Quantity of alcohol used, lb/mo and ton/yr;

i. Quantity of alcohol recovered using the affected evaporator, lb/mo and ton/yr;

j. Quantity of alcohol discharged to the wastewater treatment plant from the affected evaporator, lb/mo and ton/yr; and

k. The monthly and aggregate annual VOM and HAP emissions from the affected evaporator based on the material and

solvent usage and air pollution control equipment efficiencies, with supporting calculations.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected evaporator 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. A person planning to conduct a volatile organic material emissions test to demonstrate compliance with or determine applicability of provisions of 35 IAC 215 Subpart T shall notify the Illinois EPA of that intent to test not less than 30 calendar days prior to the planned initiation of the test [35 IAC 218.487(b)].

b. Emissions of VOM, in excess of the limits in Conditions 5.5.3, 7.2.3, and/or 7.2.6 based on the current month's records plus the preceding 11 months 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. Determinations of daily and/or annual emissions:

i. Pursuant to 35 IAC 215.480(h)(1), determinations of daily and/or annual emissions for purposes of 35 IAC 218.480 shall be made using:

A. data on the hourly emission rate or the emission per unit of throughput [35 IAC 215.480(h)(1)(A)]; and

B. appropriate daily and annual data from records of emission source operation or material throughput, or material consumption [35 IAC 215.480(h)(1)(B)].

ii. In the absence of representative test data pursuant to Condition 7.2.7 (see also 35 IAC 215.487) for the hourly emission rate or emission rate per unit of throughput, such items shall be determined using engineering calculations, including the methods described in Appendix B of "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" [35 IAC 215.480(h)(2)].

b. To determine compliance with Conditions 5.5.1, 5.5.3, 7.2.3(b), and 7.2.6, VOM emissions from the affected evaporator, calculations based on the formulas and procedures listed in Appendix B of "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" (EPA-450/2-78-029) are acceptable.

7.3 Units EU-2 Biochemical Manufacturing

7.3.1 Description

The Biochemical Manufacturing operation produces various products from bovine plasma and various animal glands. Of these products, one is formulated into final dosage form in the Parenteral department. The remainder of products manufactured by the Biochemical Manufacturing department are sold in bulk to other companies for further processing. Typical production includes the use of reactor tanks to hold, mix, and react product intermediates (typical reactions include precipitations), and to mix and hold buffers. Most of the tanks are operated at ambient temperatures. Filter presses are used to separate solids from liquids. Either the solid, liquid, or both go on for further processing. Waste liquids are sent for alcohol recovery if alcohol is present in a high enough concentration. Liquids with low concentrations of alcohol are discharged directly to the wastewater treatment plant. Product transfer pumps move material in stainless steel piping or flexible hoses between process tanks, filter presses, etc. All product transfer pumps are pneumatically or electrically driven. Slop alcohol pumps transfer alcohol-containing waste to the slop alcohol storage tanks in the tank farm. Ultrafilters are used to separate product from wastes, based on molecular size. Waste liquids from the ultrafilters are sent for alcohol recovery if the alcohol content is above 5%. Otherwise, these materials are discharged to the wastewater treatment plant. A dry ice and alcohol bath is used to freeze trays of product rapidly. The waste alcohol from the bath is added to the slop alcohol stream for recovery. A 30 gallon Buchner filter funnel is used to filter waste acetone or other solvents from product. A vacuum is used pull the liquid through the filter, separating the acetone or solvent from the product.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment

Filter Press Cold Room	36 Inch Sperry Model #474849 Cold Room Filter Press	None
I0001	1,500 Gallon Northland Stainless Reactor Tank (#78)	None
I0002	1,500 Gallon Northland Stainless Reactor Tank (#80)	None
I003	1,500 Gallon Northland Stainless Reactor Tank (#81)	None
Emission Unit	Description	Emission Control Equipment
I004	1,500 Gallon Northland Stainless Reactor Tank (#77)	None
Ice Bath	700 Liter 3A Alcohol and Dry Ice Bath	None
K2263	200 Sq. Ft. Osmonics Model #420T-05 Ultrafilter	None
L2753	Stokes Tray Vacuum Dryer	None
L2758	Stokes Tray Vacuum Dryer	None
L2763	Stokes Tray Vacuum Dryer	None
L2768	Stokes Tray Vacuum Dryer	None
L2855	Stokes Tray Vacuum Dryer	None
L2860	Stokes Tray Vacuum Dryer	None
L3452	1,000 Gallon Reactor	None
L4088	Stokes Tray Vacuum Dryer	None
L4091	Stokes Tray Vacuum Dryer	None
L4428	7,000 Gallon Tank (#69)	None
L4511	Stokes Tray Vacuum Dryer	None
L5013	42 Inch Sperry Model #M513 Filter Press (#111)	None
L5031	1,000 Gallon Pfaudler Reactor Tank (#44)	None
L5032	1,000 Gallon Pfaudler Reactor Tank (#45)	None
L5041	1,000 Gallon Pfaudler Reactor Tank (#36)	None
L5610	2,000 Gallon Will-Flow Corporation Reactor Tank (#46)	None
L6300	Stokes Tray Vacuum Dryer	None
L6348	1,000 Gallon Chem-Tek Reactor Tank (#72)	None
L6511	20 Gallon Buchner Filter Funnel	None

L6722	4,500 Gallon Walker Model #SP6463 Reactor Tank (#74)	None
L6723	4,500 Gallon Walker Model #SP6463 Reactor Tank (#75)	None
L6792	36 Inch Sperry Cold Room Filter Press	None
L6985	750 Gallon Walker Model #SP6100 Reactor Tank (#33)	None
L6986	750 Gallon Walker Model #SP6100 Reactor Tank (#43)	None
L7614	100 Gallon Pfaudler Reactor	None
L8038	1,500 Gallon Walker Model #SP6375 Reactor Tank (#29)	None
LM 5014	42 Inch Sperry Model #M513 Filter Press (#107)	None
LM 5015	42 Inch Sperry Model #M513 Filter Press (#104)	None
Emission Unit	Description	Emission Control Equipment
LM5085	1,000 Gallon Reactor Tank (#28)	None
LM6352	1,500 Gallon Walker #SP4717 Reactor Tank (#30)	None
NC2807	300 Sq. Ft. Triclover Ultrafilter	None
Tank #47	1,000 Gallon Pfaudler Reactor Tank	None
Tank #50	1,500 Gallon Walker Model #SP6375 Reactor Tank	None
Tank #55	1,500 Gallon Walker Model #SP6375 Reactor Tank	None
Tank #58	1,500 Gallon Walker Model #SP6375 Reactor Tank	None

7.3.3 Applicability Provisions and Applicable Regulations

a. The Biochemical Manufacturing equipment listed in Condition 7.3.2 are “affected pharmaceutical manufacturing units” for the purpose of these unit-specific conditions.

b. 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 215.302, 215.303, 215.304, and the following exception: If no odor nuisance exists the limitation

of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 215.301].

7.3.4 Non-Applicability of Regulations of Concern

a. The affected pharmaceutical product manufacturing units are not subject to the NESHAP for Pharmaceuticals Production, 40 CFR 63 Subparts A and GGG, because the source is not a major source of HAPs.

b. The affected pharmaceutical manufacturing units are not subject to the control requirements of 35 IAC 215 Subpart T, because pursuant to 35 IAC 215.480(a), the rules of 35 IAC 215 Subpart T, Pharmaceutical Manufacturing, except for 35 IAC 215.483 through 215.485, apply to all emission units of volatile organic material, including but not limited to reactors, distillation units, dryers, storage tanks for volatile organic liquids, equipment for the transfer of volatile organic liquids, filters, crystallizers, washers, laboratory hoods, pharmaceutical coating operations, mixing operations and centrifuges used in manufacturing, including packaging, of pharmaceuticals, and emitting more than 6.8 kg/day (15 lb/day) and more than 2,268 kg/year (2.5 tons/year) of volatile organic material. If such an emission unit emits less than 2,268 kg/year (2.5 tons/year) of volatile organic material, the requirements of 35 IAC 215 Subpart T, except for 35 IAC 215.483 through 215.485, still apply to the emission unit if volatile organic material emissions from the emission unit exceed 45.4 kg/day (100 lb/day).

7.3.5 Operational and Production Limits and Work Practices

a. The owner or operator shall install covers on all in-process tanks used to manufacture pharmaceuticals and containing a volatile organic liquid at any time. These covers must remain closed, except as production, sampling, maintenance or inspection procedures require operator access [35 IAC 215.484].

b. The owner or operator of a pharmaceutical manufacturing source shall repair any component from which a leak of volatile organic liquid can be

observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found. If the leaking component cannot be repaired until the process unit is shut down, the leaking component must then be repaired before the unit is restarted [35 IAC 215.485].

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected pharmaceutical manufacturing units are subject to the following:

a. Usage, that is consumption, of alcohol in Building 5 shall not exceed the following limitations:

Alcohol Usage	
(lb/mo)	(ton/yr)
150,000	900.0

These limits are based on the maximum alcohol consumption and the associated maximum emissions of VOM from the alcohol evaporator system indicated in Condition 7.2.6(a).

b. The above limitations were established in Permit 96120044, 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].

c. 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).

7.3.7 Testing Requirements

a. Upon reasonable request by the Illinois EPA pursuant to 35 IAC 215.487(a), the owner or operator of any volatile organic material emission source subject to

35 IAC 215 Subpart T or exempted from 35 IAC 215 Subpart T by provisions of Condition 7.3.4(b) (see also 215.480(a)) or 35 IAC 218.480(c) shall, at his own expense, demonstrate compliance to the Illinois EPA by methods or procedures listed in Condition 7.3.7(b) (see also 35 IAC 215.487(c)); and

b. Pursuant to 35 IAC 215.487(c), test procedures to determine compliance with and applicability of 35 IAC 215 Subpart T are in 40 CFR Part 60, Appendix A and shall be used as delineated below:

i. 40 CFR 60, Appendix A, Methods 18, 25 or 25A, as appropriate to the conditions at the site, shall be used to determine VOM concentration. Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in 35 IAC 215.487(c)(1)(A) and (c)(1)(B), the test shall consist of three separate runs, each lasting a minimum of 60 minutes, unless the Illinois EPA determines that process variables dictate shorter sampling times [35 IAC 215.487(c)(1)].

ii. 40 CFR Part 60, Appendix A, Method 1 or 1A shall be used for sample and velocity traverses [35 IAC 215.487(c)(2)].

iii. 40 CFR Part 60, Appendix A, Method 2, 2A, 2C or 2D shall be used for velocity and volumetric flow rates [35 IAC 215.487(c)(3)].

iv. 40 CFR Part 60, Appendix A, Method 3 shall be used for gas analysis [35 IAC 215.487(c)(4)].

v. 40 CFR Part 60, Appendix A, Method 4 shall be used for stack gas moisture [35 IAC 215.487(c)(5)].

vi. 40 CFR Part 60, Appendix A, Methods 2, 2A, 2C, 2D, 3 and 4 shall be performed, as applicable, at least twice during each test run [35 IAC 215.487(c)(6)].

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 pharmaceutical manufacturing unit to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.3.3, 7.3.4(b), and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of the affected pharmaceutical manufacturing units pursuant to Condition 7.3.7, which include the following [Section 39.5(7)(e) of the Act]:

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

ii. The date(s) analyses were performed;

iii. The company or entity that performed the analyses;

iv. The analytical techniques or methods used;

v. The results of such analyses; and

vi. The operating conditions as existing at the time of sampling or measurement.

b. Pursuant to 35 IAC 215.489(b), for any leak subject to Condition 7.3.5(b) (see also 35 IAC 215.485) which cannot be readily repaired within one hour after detection, the following records shall be kept:

i. The name of the leaking equipment [35 IAC 215.489(b)(1)].

ii. The date and time the leak is detected [35 IAC 215.489(b)(2)].

iii. The action taken to repair the leak [35 IAC 215.489(b)(3)].

iv. The date and time the leak is repaired [35 IAC 215.489(b)(4)].

c. Pursuant to 35 IAC 215.489(c), the following records shall be kept for emission sources subject to Condition 7.3.5(a) (see also 35 IAC 215.484) which contain volatile organic liquid:

i. For maintenance and inspection:

A. The date and time each cover is opened [35 IAC 215.489(c)(1)(A)].

B. The length of time the cover remains open [35 IAC 215.489(c)(1)(B)].

C. The reason why the cover is opened [35 IAC 215.489(c)(1)(C)].

ii. For production and sampling, written procedures or manufacturing directions specifying the circumstances under which covers may be opened and the procedures for opening covers [35 IAC 215.489(c)(2)].

d. Pursuant to 35 IAC 215.489(d), for each emission source used in manufacture of pharmaceuticals for which the owner or operator of a pharmaceutical manufacturing plant claims emission standards are not applicable because the emissions are below the applicability cutoff in Condition 7.3.4(b) (see also 35 IAC 215.480(a)), the owner or operator shall:

i. Maintain a demonstration, including detailed engineering calculations, of the maximum daily and annual emissions for each such emission source showing that the emissions are below the applicability cutoffs in Condition 7.3.4(b) (see also 35 IAC 215.480(a)) for the current and prior calendar years [35 IAC 215.489(d)(1)]; and

ii. Maintain operating records for each emission source to identify whether the cutoffs in Condition 7.3.4(b) (see also 35 IAC

215.480(a)) are ever exceeded [35 IAC 215.489(d)(2)].

e. Records required under this Condition (see also 35 IAC 215.489) shall be maintained by the owner or operator for a minimum of two years after the date on which they are made [35 IAC 215.489(e)].

f. Copies of the records shall be made available to the Illinois EPA upon verbal or written request [35 IAC 215.489(f)].

g. Denatured ethanol usage for the affected pharmaceutical manufacturing units, lb/mo and ton/yr;

h. The amount of plasma processed using the affected pharmaceutical manufacturing units, lb/mo and ton/yr;

i. The operating schedule of the affected pharmaceutical manufacturing units or number of hours the affected pharmaceutical manufacturing units have been operated; and

j. The monthly and aggregate annual VOM and HAP emissions from the affected pharmaceutical manufacturing units based on the denatured ethanol usage, the amount of plasma processed and air pollution control equipment efficiencies, with supporting calculations.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected pharmaceutical units 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. A person planning to conduct a volatile organic material emissions test to demonstrate compliance with or determine applicability of provisions of 35 IAC 215 Subpart T shall notify the Illinois EPA of that intent to test not less than 30 calendar days prior to the planned initiation of the test [35 IAC 218.487(b)].

b. For each emission unit used in the manufacture of pharmaceuticals for which the owner or operator of a pharmaceutical manufacturing source claims emission standards are not applicable, because the emissions are below the applicability cutoffs in Condition 7.3.4(b) (see also 35 IAC 215.480(a)), the owner or operator shall provide written notification to the Illinois EPA within 30 days of a determination that such an emissions source has exceeded the applicability cutoff of Condition 7.3.4(b) (see also 35 IAC 215.480(a)) [35 IAC 215.489(d)(3)].

c. Emissions of VOM, in excess of the limits in Conditions 5.5.3, 7.3.3, and/or 7.3.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

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:

a. Determinations of daily and/or annual emissions:

i. Pursuant to 35 IAC 215.480(h)(1), determinations of daily and/or annual emissions for purposes of 35 IAC 218.480 shall be made using:

A. data on the hourly emission rate or the emission per unit of throughput [35 IAC 215.480(h)(1)(A)]; and

B. appropriate daily and annual data from records of emission source operation or material throughput, or material consumption [35 IAC 215.480(h)(1)(B)].

ii. In the absence of representative test data pursuant to Condition 7.3.7 (see also 35 IAC 215.487) for the hourly emission rate or

emission rate per unit of throughput, such items shall be determined using engineering calculations, including the methods described in Appendix B of "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" [35 IAC 215.480(h)(2)].

b. To determine compliance with Conditions 5.5.1, 5.5.3, 7.3.3(b), and 7.3.6, VOM emissions from the affected pharmaceutical manufacturing units, calculations based on the formulas and procedures listed in Appendix B of "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" (EPA-450/2-78-029) are acceptable.

7.4 Unit EU-4 Plasma Derivative Parenteral

7.4.1 Description

This process packages bulk liquid products from other production area in the plant. Emissions from this operation primarily occur during rubber stopper preparation. Stoppers are soaked in SDA-3A alcohol, followed by multiple water rinses. Additional VOM emissions occur from filter testing and sanitation activities.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
EU-4	Plasma Derivative Parenteral (Bottling and Packaging of Pharmaceutical Products)	None

7.4.3 Applicability Provisions and Applicable Regulations

a. The Plasma Derivative Parenteral process listed in Condition 7.4.2 are “affected packaging units” for the purpose of these unit-specific conditions.

b. 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 215.302, 215.303, 215.304, and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 215.301].

7.4.4 Non-Applicability of Regulations of Concern

a. The affected packaging units are not subject to the NESHAP for Pharmaceuticals Production, 40 CFR 63 Subparts A and GGG, because the source is not a major source of HAPs.

b. The affected packaging units are not subject to the control requirements of 35 IAC 215 Subpart T, because pursuant to 35 IAC 215.480(a), the rules of 35 IAC 215 Subpart T, Pharmaceutical Manufacturing, except for 35

IAC 215.483 through 215.485, apply to all emission units of volatile organic material, including but not limited to reactors, distillation units, dryers, storage tanks for volatile organic liquids, equipment for the transfer of volatile organic liquids, filters, crystallizers, washers, laboratory hoods, pharmaceutical coating operations, mixing operations and centrifuges used in manufacturing, including packaging, of pharmaceuticals, and emitting more than 6.8 kg/day (15 lb/day) and more than 2,268 kg/year (2.5 tons/year) of volatile organic material. If such an emission unit emits less than 2,268 kg/year (2.5 tons/year) of volatile organic material, the requirements of 35 IAC 215 Subpart T, except for 35 IAC 215.483 through 215.485, still apply to the emission unit if volatile organic material emissions from the emission unit exceed 45.4 kg/day (100 lb/day).

7.4.5 Operational and Production Limits and Work Practices

a. The owner or operator shall install covers on all in-process tanks used to manufacture pharmaceuticals and containing a volatile organic liquid at any time. These covers must remain closed, except as production, sampling, maintenance or inspection procedures require operator access [35 IAC 215.484].

b. The owner or operator of a pharmaceutical manufacturing source shall repair any component from which a leak of volatile organic liquid can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found. If the leaking component cannot be repaired until the process unit is shut down, the leaking component must then be repaired before the unit is restarted [35 IAC 215.485].

7.4.6 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.

7.4.7 Testing Requirements

a. Upon reasonable request by the Illinois EPA pursuant to 35 IAC 215.487(a), the owner or operator of any volatile organic material emission source subject to 35 IAC 215 Subpart T or exempted from 35 IAC 215 Subpart T by provisions of Condition 7.4.4(b) (see also 215.480(a)) or 35 IAC 215.480(c) shall, at his own expense, demonstrate compliance to the Illinois EPA by methods or procedures listed in Condition 7.4.7(b) (see also 35 IAC 215.487(c)); and

b. Pursuant to 35 IAC 215.487(c), test procedures to determine compliance with and applicability of 35 IAC 215 Subpart T are in 40 CFR Part 60, Appendix A and shall be used as delineated below:

i. 40 CFR 60, Appendix A, Methods 18, 25 or 25A, as appropriate to the conditions at the site, shall be used to determine VOM concentration. Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in 35 IAC 215.487(c)(1)(A) and (c)(1)(B), the test shall consist of three separate runs, each lasting a minimum of 60 minutes, unless the Illinois EPA determines that process variables dictate shorter sampling times [35 IAC 215.487(c)(1)].

ii. 40 CFR Part 60, Appendix A, Method 1 or 1A shall be used for sample and velocity traverses [35 IAC 215.487(c)(2)].

iii. 40 CFR Part 60, Appendix A, Method 2, 2A, 2C or 2D shall be used for velocity and volumetric flow rates [35 IAC 215.487(c)(3)].

iv. 40 CFR Part 60, Appendix A, Method 3 shall be used for gas analysis [35 IAC 215.487(c)(4)].

v. 40 CFR Part 60, Appendix A, Method 4 shall be used for stack gas moisture [35 IAC 215.487(c)(5)].

vi. 40 CFR Part 60, Appendix A, Methods 2, 2A, 2C, 2D, 3 and 4 shall be performed, as applicable, at least twice during each test run [35 IAC 215.487(c)(6)].

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 each affected packaging unit to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.4.3, and 7.4.4(b), pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of the affected packaging units pursuant to Condition 7.4.7, which include the following [Section 39.5(7)(e) of the Act]:

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

ii. The date(s) analyses were performed;

iii. The company or entity that performed the analyses;

iv. The analytical techniques or methods used;

v. The results of such analyses; and

vi. The operating conditions as existing at the time of sampling or measurement.

b. Pursuant to 35 IAC 215.489(b), for any leak subject to Condition 7.4.5(b) (see also 35 IAC 215.485) which cannot be readily repaired within one hour after detection, the following records shall be kept:

i. The name of the leaking equipment [35 IAC 215.489(b)(1)].

ii. The date and time the leak is detected [35 IAC 215.489(b)(2)].

iii. The action taken to repair the leak [35 IAC 215.489(b)(3)].

iv. The date and time the leak is repaired [35 IAC 215.489(b)(4)].

c. Pursuant to 35 IAC 215.489(c), the following records shall be kept for emission sources subject to Condition 7.4.5(a) (see also 35 IAC 215.484) which contain volatile organic liquid:

i. For maintenance and inspection:

A. The date and time each cover is opened [35 IAC 215.489(c)(1)(A)].

B. The length of time the cover remains open [35 IAC 215.489(c)(1)(B)].

C. The reason why the cover is opened [35 IAC 215.489(c)(1)(C)].

ii. For production and sampling, written procedures or manufacturing directions specifying the circumstances under which covers may be opened and the procedures for opening covers [35 IAC 215.489(c)(2)].

d. Pursuant to 35 IAC 215.489(d), for each emission source used in manufacture of pharmaceuticals for which the owner or operator of a pharmaceutical manufacturing plant claims emission standards are not applicable because the emissions are below the applicability cutoff in Condition 7.4.4(b) (see also 35 IAC 215.480(a)), the owner or operator shall:

i. Maintain a demonstration, including detailed engineering calculations, of the maximum daily and annual emissions for each such emission source showing that the emissions are below the applicability cutoffs in Condition 7.4.4(b) (see also 35 IAC 215.480(a)) for the current and prior calendar years [35 IAC 215.489(d)(1)]; and

ii. Maintain operating records for each emission source to identify whether the cutoffs in Condition 7.4.4(b) (see also 35 IAC 215.480(a)) are ever exceeded [35 IAC 215.489(d)(2)].

e. Records required under this Condition (see also 35 IAC 215.489) shall be maintained by the owner or operator for a minimum of two years after the date on which they are made [35 IAC 215.489(e)].

f. Copies of the records shall be made available to the Illinois EPA upon verbal or written request [35 IAC 215.489(f)].

g. Alcohol consumption for the affected packaging units, ton/mo and ton/yr;

h. The amount of alcohol discharged to the wastewater treatment plant from the affected packaging units, ton/mo and ton/yr; and

i. The monthly and aggregate annual VOM and HAP emissions from the affected packaging units based on the alcohol usage and amount of alcohol discharged to the wastewater treatment plant, with supporting calculations.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected packaging units 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. A person planning to conduct a volatile organic material emissions test to demonstrate compliance with or determine applicability of provisions of 35 IAC 215 Subpart T shall notify the Illinois EPA of that intent to test not less than 30 calendar days prior to the planned initiation of the test [35 IAC 218.487(b)].

b. For each emission unit used in the manufacture of pharmaceuticals for which the owner or operator of a

pharmaceutical manufacturing source claims emission standards are not applicable, because the emissions are below the applicability cutoffs in Condition 7.4.4(b) (see also 35 IAC 215.480(a)), the owner or operator shall provide written notification to the Illinois EPA within 30 days of a determination that such an emissions source has exceeded the applicability cutoff of Condition 7.4.4(b) (see also 35 IAC 215.480(a)) [35 IAC 215.489(d)(3)].

c. Emissions of VOM, in excess of the limits in Condition 5.5.3 based on the current month's records plus the preceding 11 months 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. Determinations of daily and/or annual emissions:

i. Pursuant to 35 IAC 215.480(h)(1), determinations of daily and/or annual emissions for purposes of 35 IAC 218.480 shall be made using:

A. Data on the hourly emission rate or the emission per unit of throughput [35 IAC 215.480(h)(1)(A)]; and

B. Appropriate daily and annual data from records of emission source operation or material throughput, or material consumption [35 IAC 215.480(h)(1)(B)].

ii. In the absence of representative test data pursuant to Condition 7.4.7 (see also 35 IAC 215.487) for the hourly emission rate or emission rate per unit of throughput, such items shall be determined using engineering

calculations, including the methods described in Appendix B of "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" [35 IAC 215.480(h)(2)].

b. To determine compliance with Conditions 5.5.1, 5.5.3, and 7.4.3(b), VOM emissions from the affected packaging units shall be calculated based on the following:

VOM (lb) = (Alcohol Consumption, lb) - (Alcohol Discharged to Wastewater Treatment Plant, lb)

7.5 Units EU-6 Tanks 1 - 8 and 19 - 21

7.5.1 Description

The source operates a tank farm containing 12 aboveground storage tanks ranging in size from 1,000 to 11,200 gallons. All of these tanks are equipped to store volatile organic liquid with a vapor pressure less than 1.0 psi. These bulk tanks currently storage SDA-3A alcohol ranging in concentration from approximately 20% to 100%. Storage Tanks Nos. 20 and 21 are equipped to fill from the bottom.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Storage Tank #1	10,800 Gallon Pfaudler Salvaged 3A Alcohol (Ethyl Alcohol/Water) Storage Tank	None
Storage Tank #2	10,800 Gallon Pfaudler Salvaged 3A Alcohol Storage Tank	None
Storage Tank #3	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank	None
Storage Tank #4	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank	None
Storage Tank #5	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank	None
Storage Tank #6	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank	None
Storage Tank #7	10,800 Gallon Pfaudler New 3A Alcohol Storage Tank	None
Storage Tank #8	10,800 Gallon Pfaudler New 3A Alcohol Storage Tank	None
Storage Tank #19	5,000 Gallon Slop 3A Alcohol Storage Tank	None
Storage Tank #20	11,200 Gallon Dairy Craft, Inc. Slop 3A Alcohol Storage Tank	None
Storage Tank #21	11,200 Gallon Dairy Craft, Inc. Slop 3A Alcohol Storage Tank	None

7.5.3 Applicability Provisions and Applicable Regulations

a. Storage Tanks #1 - #8 and #19 - #21 are “affected tanks” for the purpose of these unit-specific conditions.

b. 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 215.302, 215.303, 215.304, and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 215.301].

7.5.4 Non-Applicability of Regulations of Concern

a. The affected tanks are not subject to the NESHAP for Pharmaceuticals Production, 40 CFR 63 Subparts A and GGG, because the source is not a major source of HAPs.

b. The affected tanks are not subject to the NSPS for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60 Subparts A and Ka, because each affected tank has a storage capacity less than 151,416 l (40,000 gal) and the affected tanks are not used to store petroleum liquids.

c. The affected tanks are not subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subparts A and Kb, because each affected tank was constructed prior to 1984.

d. The affected tanks are not subject to the limitations of 35 IAC 215.121, Storage Containers, because the capacity of each affected tank is less than 151 cubic meters (40,000 gal).

e. The affected tanks are not subject to the requirements of 35 IAC 215.122, Loading Operations, because pursuant to 35 IAC 215.122(c), if no odor nuisance exists the limitations of 35 IAC 215.122 shall only apply to the loading of volatile organic liquid with a

vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).

f. The affected tanks are not subject to the requirements of 35 IAC 215.123, Petroleum Liquid Storage Tanks, pursuant to 35 IAC 215.123(a)(2), which exempts storage tanks with capacities less than 151.42 cubic meters (40,000 gal) and pursuant to 35 IAC 215.123(a)(6), which exempts stationary storage tanks in which volatile petroleum liquid is not stored.

g. The affected tanks are not subject to the control requirements of 35 IAC 215 Subpart T, because pursuant to 35 IAC 215.480(a), the rules of 35 IAC 215 Subpart T, Pharmaceutical Manufacturing, except for 35 IAC 215.483 through 215.485, apply to all emission units of volatile organic material, including but not limited to reactors, distillation units, dryers, storage tanks for volatile organic liquids, equipment for the transfer of volatile organic liquids, filters, crystallizers, washers, laboratory hoods, pharmaceutical coating operations, mixing operations and centrifuges used in manufacturing, including packaging, of pharmaceuticals, and emitting more than 6.8 kg/day (15 lb/day) and more than 2,268 kg/year (2.5 tons/year) of volatile organic material. If such an emission unit emits less than 2,268 kg/year (2.5 tons/year) of volatile organic material, the requirements of 35 IAC 215 Subpart T, except for 35 IAC 215.483 through 215.485, still apply to the emission unit if volatile organic material emissions from the emission unit exceed 45.4 kg/day (100 lb/day).

7.5.5 Operational and Production Limits and Work Practices

a. The owner or operator of a pharmaceutical manufacturing source shall repair any component from which a leak of volatile organic liquid can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found. If the leaking component cannot be repaired until the process unit is shut down, the leaking component must then be repaired before the unit is restarted [35 IAC 215.485].

b. The affected tanks shall only be used for the storage of materials with a vapor pressure of less than 1.5 psia at 70°F.

7.5.6 Emission Limitations

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

a. Emissions of VOM from the Tank Farm area shall not exceed 1.70 tons/year.

b. The above limitations were established in Permit 96120044, 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].

c. 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).

7.5.7 Testing Requirements

a. Upon reasonable request by the Illinois EPA pursuant to 35 IAC 215.487(a), the owner or operator of any volatile organic material emission source subject to 35 IAC 215 Subpart T or exempted from 35 IAC 215 Subpart T by provisions of Condition 7.5.4(g) (see also 215.480(a)) or 35 IAC 215.480(c) shall, at his own expense, demonstrate compliance to the Illinois EPA by methods or procedures listed in Condition 7.5.7(b) (see also 35 IAC 215.487(c)); and

b. Pursuant to 35 IAC 215.487(c), test procedures to determine compliance with and applicability of 35 IAC 215 Subpart T are in 40 CFR Part 60, Appendix A and shall be used as delineated below:

i. 40 CFR 60, Appendix A, Methods 18, 25 or 25A, as appropriate to the conditions at the site, shall be used to determine VOM concentration. Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in 35 IAC 215.487(c)(1)(A) and (c)(1)(B), the test shall consist of three separate runs, each lasting a minimum of 60 minutes, unless the Illinois EPA determines that process variables dictate shorter sampling times [35 IAC 215.487(c)(1)].

ii. 40 CFR Part 60, Appendix A, Method 1 or 1A shall be used for sample and velocity traverses [35 IAC 215.487(c)(2)].

iii. 40 CFR Part 60, Appendix A, Method 2, 2A, 2C or 2D shall be used for velocity and volumetric flow rates [35 IAC 215.487(c)(3)].

iv. 40 CFR Part 60, Appendix A, Method 3 shall be used for gas analysis [35 IAC 215.487(c)(4)].

v. 40 CFR Part 60, Appendix A, Method 4 shall be used for stack gas moisture [35 IAC 215.487(c)(5)].

vi. 40 CFR Part 60, Appendix A, Methods 2, 2A, 2C, 2D, 3 and 4 shall be performed, as applicable, at least twice during each test run [35 IAC 215.487(c)(6)].

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 each affected tank to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.5.3, 7.5.4(g), and 7.5.6, pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of the affected tanks pursuant to Condition 7.5.7, which include the following [Section 39.5(7)(e) of the Act]:

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

   ii. The date(s) analyses were performed;

   iii. The company or entity that performed the analyses;

   iv. The analytical techniques or methods used;

   v. The results of such analyses; and

   vi. The operating conditions as existing at the time of sampling or measurement.

b. Pursuant to 35 IAC 215.489(b), for any leak subject to Condition 7.5.5(b) (see also 35 IAC 215.485) which cannot be readily repaired within one hour after detection, the following records shall be kept:

   i. The name of the leaking equipment [35 IAC 215.489(b)(1)].

   ii. The date and time the leak is detected [35 IAC 215.489(b)(2)].

   iii. The action taken to repair the leak [35 IAC 215.489(b)(3)].

   iv. The date and time the leak is repaired [35 IAC 215.489(b)(4)].

c. Pursuant to 35 IAC 215.489(d), for each emission source used in manufacture of pharmaceuticals for which the owner or operator of a pharmaceutical manufacturing plant claims emission standards are not applicable because the emissions are below the applicability cutoff in Condition 7.5.4(g) (see also 35 IAC 215.480(a)), the owner or operator shall:

i. Maintain a demonstration, including detailed engineering calculations, of the maximum daily and annual emissions for each such emission source showing that the emissions are below the applicability cutoffs in Condition 7.5.4(g) (see also 35 IAC 215.480(a)) for the current and prior calendar years [35 IAC 215.489(d)(1)]; and

ii. Maintain operating records for each emission source to identify whether the cutoffs in Condition 7.5.4(g) (see also 35 IAC 215.480(a)) are ever exceeded [35 IAC 215.489(d)(2)].

d. Records required under this Condition (see also 35 IAC 215.489) shall be maintained by the owner or operator for a minimum of two years after the date on which they are made [35 IAC 215.489(e)].

e. Copies of the records shall be made available to the Illinois EPA upon verbal or written request [35 IAC 215.489(f)].

f. Identification of the material stored in each affected tank;

g. The throughput of each affected tank, gal/mo and gal/yr;

h. The vapor pressure of the material stored in each affected tank, psia; and

i. The monthly and aggregate annual VOM and HAP emissions from the affected tank based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected tank 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. A person planning to conduct a volatile organic material emissions test to demonstrate compliance with or determine applicability of provisions of 35 IAC 215 Subpart T shall notify the Illinois EPA of that intent to test not less than 30 calendar days prior to the planned initiation of the test [35 IAC 218.487(b)].

b. For each emission unit used in the manufacture of pharmaceuticals for which the owner or operator of a pharmaceutical manufacturing source claims emission standards are not applicable, because the emissions are below the applicability cutoffs in Condition 7.5.4(g) (see also 35 IAC 215.480(a)), the owner or operator shall provide written notification to the Illinois EPA within 30 days of a determination that such an emissions source has exceeded the applicability cutoff of Condition 7.5.4(g) (see also 35 IAC 215.480(a)) [35 IAC 215.489(d)(3)].

c. The storage of any VOL or VPL other than the materials specified in Condition 7.5.5(b) for the affected tanks within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

d. Emissions of VOM, in excess of the limits in Conditions 5.5.3 and/or 7.5.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

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. Determinations of daily and/or annual emissions:

i. Pursuant to 35 IAC 215.480(h)(1), determinations of daily and/or annual emissions for purposes of 35 IAC 218.480 shall be made using:

A. Data on the hourly emission rate or the emission per unit of throughput [35 IAC 215.480(h)(1)(A)]; and

B. Appropriate daily and annual data from records of emission source operation or material throughput, or material consumption [35 IAC 215.480(h)(1)(B)].

ii. In the absence of representative test data pursuant to Condition 7.5.7 (see also 35 IAC 215.487) for the hourly emission rate or emission rate per unit of throughput, such items shall be determined using engineering calculations, including the methods described in Appendix B of "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" [35 IAC 215.480(h)(2)].

b. For the purpose of estimating VOM emissions from the affected tanks to determine compliance with Conditions 5.5.1, 5.5.3, and 7.5.4, Versions 3.1 or 4.0 of the TANKS program are acceptable.

7.6 Unit EU-7 Wastewater Treatment Plant
Control EU-7 Packed Bed Scrubber

7.6.1 Description

The source's wastewater treatment plant is a pre-treatment facility that consists of pH adjustment and a triple basin aeration system. The wastewater treatment plant is equipped with full enclosures over the aeration tanks that are vented to a scrubber for odor control. One hundred percent of the off-gas generated from the three aeration tanks is controlled by this packed-bed scrubber. The majority of the VOM in the wastewater treated by this system is biodegraded and that which is stripped out by the aeration process is controlled by the enclosure/scrubber system.

7.6.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
EU-7	Wastewater Treatment Plant (pH Adjustment and Triple Basin Aeration System)	Packed Bed Scrubber

7.6.3 Applicability Provisions and Applicable Regulations

a. The Wastewater Treatment Plant listed in Condition 7.6.2 is an “affected wastewater treatment plant” for the purpose of these unit-specific conditions.

b. No person shall use any single or multiple compartment effluent water separator which receives effluent water containing 757 1/day (200 gal/day) or more of organic material from any equipment processing, refining, treating, storing or handling organic material unless such effluent water separator is equipped with air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material emitted to the atmosphere. Exception: If no odor nuisance exists the limitations of this subparagraph shall not apply if the vapor pressure of the organic material is below 17.24 kPa (2.5 psia) at 294.3^{o}K (70^{o}F) [35 IAC 215.141(a)].

c. No person shall cause or allow the discharge of more than 32.8 ml (2 cu in) of volatile organic liquid with vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) into the atmosphere from any pump or compressor in any 15 minute period at standard conditions [35 IAC 215.142].

d. 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 215.302, 215.303, 215.304, and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 215.301].

7.6.4 Non-Applicability of Regulations of Concern

a. The affected wastewater treatment plant is not subject to the NESHAP for Pharmaceuticals Production, 40 CFR 63 Subparts A and GGG, because the source is not a major source of HAPs.

b. The affected wastewater treatment plant is not subject to the NSPS for Sewage Treatment Plants, 40 CFR 60 Subpart O, because there is no incinerator that combusts wastes containing more than 10 percent sewage sludge (dry basis) produced by municipal sewage treatment plants, or an incinerator that charges more than 1000 kg (2205 lb) per day municipal sewage sludge (dry basis) associated with this affected wastewater treatment plant.

c. The affected wastewater treatment plant is not subject to the NSPS for VOC Emissions From Petroleum Refinery Wastewater Systems, 40 CFR 60 Subpart QQQ, because the affected wastewater plant is not located at a petroleum refinery.

d. The affected wastewater treatment plant is not subject to 35 IAC 215.443, Wastewater (Oil/Water) Separator, because the affected wastewater treatment plant is not located at a petroleum refinery.

7.6.5 Operational and Production Limits and Work Practices

The Permittee shall follow good operating practices for the packed bed scrubber 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

Pursuant to Section 39.5(7)(b) of the Act, testing for the vapor pressure of the organic material in the effluent water received by the effluent water separator or discharged from any pump or compressor shall be performed as follows:

Upon reasonable request by the Illinois EPA, the vapor pressure of the organic material in the effluent water received by the effluent water separator or discharged from any pump or compressor shall be determined according to ASTM D2879-83, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope (see 40 CFR 60.17(a)(37)).

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 wastewater treatment plant to demonstrate compliance with Conditions 5.5.1, 5.5.3, and 7.6.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of the organic material in the effluent water 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. Records addressing use of good operating practices for the packed bed scrubber:

i. Records for periodic inspection of the packed bed scrubber 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 operating schedule of affected wastewater plant; and

d. Monthly and annual aggregate VOM and HAP emissions from the affected wastewater plant shall be maintained, based on the operating schedule and typical hourly emission rate, with supporting calculations.

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected wastewater treatment plant 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 Permittee shall notify the Illinois EPA of a determination that vapor pressure of the organic material in the effluent water received by the effluent water separator is equal to or above 17.24 kPa (2.5 psia) at 294.3^{o}K (70^{o}F) within 30 calendar days of such an occurrence.

b. Emissions of VOM, in excess of the limits in Condition 5.5.3 based on the current month's records plus the

preceding 11 months 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 Conditions 7.6.3(b) and (c) is addressed by sampling the effluent water received by the effluent water separator or discharged from any pump or compressor to verify that the vapor pressure of the organic material is below 17.24 kPa (2.5 psia) at 294.3^{o}K (70^{o}F).

b. For the purpose of estimating VOM emissions from the affected wastewater tanks, to determine compliance with Condition 5.5.1, the emission factors and formulas specified in Section 4.3, Waste Water Collection, Treatment and Storage, of AP-42, Volume I, Fifth Edition, January, 1995 are acceptable.

7.7 Unit EU-8 Incinerator No. 1
Control EU-8 Secondary Combustion Chamber

7.7.1 Description

Incinerator No. 1 is a multiple-chamber device equipped with natural gas burners in both the primary and secondary combustion chambers. Incinerator No. 1 was formerly used as a Type 0 and Pathological Waste incinerator, but now only fires natural gas to create an updraft in the stack for proper draw for the source's old boilers.

7.7.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
EU-8	Goder Model #10497 Natural Gas-Fired Incinerator (Incinerator No. 1)	Secondary Combustion Chamber

7.7.3 Applicability Provisions and Applicable Regulations

a. Incinerator No. 1 is an "affected incinerator" for the purpose of these unit-specific conditions.

b. The affected incinerator is subject to the emission limits identified in Condition 5.2.2.

c. 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].

d. 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 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 218.301].

7.7.4 Non-Applicability of Regulations of Concern

a. The affected incinerator is not subject to 35 IAC 212.181(d), Particulate Matter Emissions from Incinerators, because the affected incinerator is no longer used to combust waste.

b. This permit is issued based on the affected incinerator not being subject to 35 IAC 212.321 or 212.322 because due to the unique nature of this process, such rules cannot reasonably be applied.

c. The affected incinerator is not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the affected incinerator is not by definition a fuel combustion emission unit.

d. The affected incinerator is not subject to 35 IAC 216.141, Emissions of Carbon Monoxide from Incinerators, because the affected incinerator is no longer used to combust waste.

e. The affected incinerator is not subject to 35 IAC Part 229, Hospital/Medical/Infectious Waste Incinerators, because, pursuant to 35 IAC 229.116(b)(1), the affected incinerator was rendered permanently inoperable prior to September 15, 2000 when the primary door was welded shut.

7.7.5 Operational and Production Limits and Work Practices

a. i. The affected incinerator shall only be operated with natural gas as the fuel.

ii. This permit is issued based on the affected incinerator no longer being used to combust waste.

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

7.7.6 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.

7.7.7 Testing Requirements

None

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 incinerator to demonstrate compliance with Conditions 5.5.1, 7.7.3, and 7.7.5 pursuant to Section 39.5(7)(b) of the Act:

a. Records addressing use of good operating practices for the affected incinerator:

i. Records for periodic inspection of the affected incinerator 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.

b. The amount and type of material charged to the affected incinerator, tons/mo and tons/yr;

c. Natural gas usage of the affected incinerator during operation when no waste is combusted, Mft^3/mo and Mft^3/yr; and

d. Monthly and annual aggregate NO_x, PM, SO_2, and VOM emissions from the affected incinerator shall be maintained, based on the amount and type of waste charged and the applicable emission factors, with supporting calculations.

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected incinerator 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:

Any occurrence when waste is charged to the affected incinerator within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

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 is assumed by the work-practices inherent in the operation of a natural gas-fired incinerator, which combusts no waste.

b. To determine compliance with Condition 5.5.1, emissions from the affected incinerator, during operation when no waste is combusted, shall be calculated based on the following emission factors:

Pollutant	Emission Factor (lb/Mft^3)
NO_x	100
PM	7.7
SO_2	0.6
VOM	5.5

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, Fifth Edition, Supplement D, March, 1998.

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

7.8 Unit EU-9 Natural Gas-Fired Boilers

7.8.1 Description

The source operates two 42 mmBtu/hr natural gas-fired boilers. Each boiler burns natural gas to produce steam. These boilers are designated for use only when either the cogeneration plant or the New Boiler are out of service.

7.8.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Boiler #1	Babcock and Wilcox Model FJ18 Natural Gas-Fired Boiler (42 mmBtu/hr)	None
Boiler #2	Babcock and Wilcox Model FJ18 Natural Gas-Fired Boiler (42 mmBtu/hr)	None

7.8.3 Applicability Provisions and Applicable Regulations

a. Boilers #1 and #2 listed in Condition 7.8.2 are “affected boilers” for the purpose of these unit-specific conditions.

b. Each affected boiler is subject to the emission limits identified in Condition 5.2.2.

c. No person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

7.8.4 Non-Applicability of Regulations of Concern

a. The affected boilers are not subject to the NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subparts A and Dc, because construction, modification, or reconstruction of each affected boiler commenced prior to June 9, 1989.

b. The affected boilers 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 affected boiler is less than 73.2 MW (250 mmBtu/hr).

c. Pursuant to 35 IAC 215.303, fuel combustion emission units are not subject to 35 IAC 215.301, Use Of Organic Material.

7.8.5 Operational and Production Limits and Work Practices

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

7.8.6 Emission Limitations

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

a. Boilers #1 and #2 shall only be operated during outage of the cogeneration system or for maintenance purposes. Keeping one of the two boilers on hot fire for emergencies is acceptable. Emissions of NO_x from Boilers #1 and #2 shall not exceed 0.88 tons/month and 5.25 tons/year, combined.

b. The above limitations contain revisions to previously issued Permit 92090036. 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 heat input limit for NO_x of 0.14 lb/mmBtu and the

annual fuel usage limit of 75,000 mmBtu/yr have been replaced with monthly and annual NO_x emission limits without any increase in the allowable annual emissions [T1R].

c. 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).

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 each affected boiler to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.8.3, and 7.8.6, pursuant to Section 39.5(7)(b) of the Act:

a. Natural gas usage for the affected boilers, Mft^3/mo and Mft^3/yr; and

b. Records of the monthly and annual aggregate CO, NO_x, PM, SO_2, and VOM emissions from the affected boiler shall be maintained, based on the natural gas consumption and the applicable emission factors, with supporting calculations.

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an 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:

a. Emissions of CO, NO_x, and/or VOM in excess of the limits in Conditions 5.5.3 and/or 7.8.6 based on the

current month's records plus the preceding 11 months within 30 days of such an occurrence.

b. The use of any fuel other than the fuel specified in Condition 7.8.5 within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

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 Conditions 7.8.3(b) and (c) is assumed by the work-practices inherent in operation of natural gas-fired boilers, so that no compliance procedures are set in this permit addressing this regulation.

b. To determine compliance with Conditions 5.5.1, 5.5.3, and 7.8.6, emissions from the affected boilers shall be calculated based on the following emission factors:

Pollutant	Emission Factor (lb/Mft^3)
CO	84
NO_x	100
PM	7.6
SO_2	0.6
VOM	5.5

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, Fifth Edition, Supplement D, March, 1998.

Boiler Emissions (lb) = (Natural Gas Consumption, Mft^3) x (The Appropriate Emission Factor, lb/Mft^3)

7.9 Unit EU-10 Electric Cogeneration Plant

7.9.1 Description

The cogeneration plant contains equipment components used to generate electricity using a natural gas-fired turbine. Waste heat generated by the turbine and additional heat supplied by a duct burner produces steam. The natural gas-fired turbine is capable of producing a nominal 4.5 megawatts of electricity. Prior to entering the turbine, the natural gas is compressed to 210 psi. The exhaust from the turbine supplies all the air needed by the supplemental duct burner. The turbine is equipped with a SoLoNO$_x$ control system, which utilizes lean burn technology to lower combustion temperature to reduce the formation nitrogen oxides. Waste heat from the turbine is capable of producing approximately 29,000 lb of steam per hour. The duct burner provides an additional 49.15 mmBtu/hr of heat input that, together with the turbine, is able to supply up to approximately 65,000 lb of steam per hour.

7.9.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Cogen Boiler	Energy Recovery Int. Waste Heat Recovery Boiler (0 mmBtu/hr)	None
Cogen Duct Burner	Davis Combustion Model EP-091 Natural Gas-Fired Duct Burner (49.15 mmBtu/hr)	None
Cogen Gas Turbine	Solar Turbines, Inc. Centaur Taurus Natural Gas-Fired Gas Turbine (62.8 mmBtu/hr)	None

7.9.3 Applicability Provisions and Applicable Regulations

a. The Cogen Boiler, Cogen Duct Burner, and Cogen Gas Turbine listed in Condition 7.9.2 are an “affected cogeneration plant” for the purpose of these unit-specific conditions.

b. The affected cogeneration plant is subject to the emission limits identified in Condition 5.2.2.

c. The gas turbine associated with the affected cogeneration plant is subject to the New Source Performance Standard (NSPS) for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG, because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the lower heating value of the fuel fired and the gas turbine commenced construction, modification, or reconstruction after October 3, 1977, and that has a peak load less than or equal to 107.2 gigajoules per hour (100 mmBtu/hr). The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

i. Pursuant to 40 CFR 60.332(a)(2) and 60.332(c), no owner or operator of an affected gas turbine with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.015 \frac{(14.4)}{Y} + F$$

Where:

STD = Allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen calculated from the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	F (NO_x percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	0.04 + 0.0067(N - 0.1)
$N > 0.25$	0.005

Where:

N = The nitrogen content of the fuel (percent by weight) determined in accordance with Condition 7.9.7(e).

ii. Standard for Sulfur Dioxide

A. No owner or operator subject to the provisions of 40 CFR 60 Subpart GG shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis [40 CFR 60.333(a)].

B. No owner or operator subject to the provisions of 40 CFR 60 Subpart GG shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight [40 CFR 60.333(b)].

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 215.302, 215.303, 215.304, and the following exception: If no odor nuisance exists the limitation

of 35 IAC 215 Subpart K shall apply only to photochemically reactive material [35 IAC 215.301].

7.9.4 Non-Applicability of Regulations of Concern

a. The affected cogeneration plant is not subject to 35 IAC 216.121, emissions of carbon monoxide from fuel combustion emission units, because the affected cogeneration plant is not by definition a fuel combustion emission unit.

b. The affected cogeneration plant is not subject to 35 IAC 217.121, emissions of nitrogen oxides from new fuel combustion emission sources, because the actual heat input of the affected gas turbine is less than 73.2 MW (250 mmBtu/hr) and the affected cogeneration plant is not by definition a fuel combustion emission unit.

c. This permit is issued based on the affected cogeneration plant not being subject to 35 IAC 212.321 because due to the unique nature of this processes, such rules cannot reasonably be applied.

d. The affected cogeneration plant 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_{10}, as identified in 35 IAC 212.324(a)(1).

7.9.5 Operational and Production Limits and Work Practices

a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected gas turbine in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].

b. The affected cogeneration plant shall only be operated with natural gas as the fuel.

7.9.6 Emission Limitations

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

a. Emissions from the affected cogeneration plant shall not exceed the following limits:

Item of	NO_x		CO		VOM	
Equipment	T/mo	T/yr	T/mo	T/yr	T/mo	T/yr
Duct Burner	0.58	6.94	0.61	7.30	0.096	1.15
Gas Turbine	3.50	37.33	2.53	26.94	0.130	1.39

These limits are based on the maximum annual fuel usage and the emission factors in Condition 7.9.12.

b. This permit is issued based upon a contemporaneous and creditable decrease in NO_x emissions so that the net increase in not significant, as described in Attachment 2.

c. The above limitations contain revisions to previously issued Permit 99030105. 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 limits on the natural gas usage for both the gas turbine and duct burner have been eliminated and compliance with the annual NO_x, CO, and VOM emission limits will be determined using records of the fuel

usage of the gas turbine and duct burner, as specified by Condition 7.9.9(d) and the compliance procedures specified in Condition 7.9.12(b) [T1R].

d. 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).

7.9.7 Testing Requirements

a. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Illinois EPA or the USEPA to determine the nitrogen content of the fuel being fired [40 CFR 60.335(a)].

b. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 CFR Part 60 or other methods and procedures as specified in this section, except as provided for in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in 40 CFR 60.335(f) [40 CFR 60.335(b)].

c. Pursuant to 40 CFR 60.335(c), the owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in Condition 7.9.3(c)(i) and (ii) (see also 40 CFR 60.332 and 60.333(a)) as follows:

i. Pursuant to 40 CFR 60.335(c)(1), the nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

$$NO_x = (NO_{xo})(P_r/P_o)^{0.5} e^{19(H_o - 0.00633)} (288^o K/T_a)^{1.53}$$

Where:

NO_x = Emission rate of NO_x at 15 percent O_2 and ISO standard ambient conditions, volume percent.

NO_{xo} = Observed NO_x concentration, ppm by volume.

P_r = Reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mmHg.

P_o = Observed combustor inlet absolute pressure at test, mmHg.

H_o = Observed humidity of ambient air, g H_2O/g air.

e = Transcendental constant, 2.718.

T_a = Ambient temperature, °K.

ii. Method 20 shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO_x emissions shall be determined at each of the load conditions specified in 40 CFR 60.335(c)(2) [40 CFR 60.335(c)(3)].

d. The owner or operator shall determine compliance with the sulfur content standard in Condition 7.9.3(c)(ii) (see also 40 CFR 60.333(b)) as follows: ASTM D 2880-71 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Illinois EPA and/or USEPA [40 CFR 60.335(d)].

e. To meet the requirements of Condition 7.9.8(a) (see also 40 CFR 60.334(b)), the owner or operator shall use the methods specified in Conditions 7.9.7(a) and (d) (see also 40 CFR 60.335(a) and (d)) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner

or operator, the fuel vendor, or any other qualified agency [40 CFR 60.335(e)].

f. Pursuant to 40 CFR 60.335(f), the owner or operator may use the following as alternatives to the reference methods and procedures specified in Condition 7.9.7 (see also 40 CFR 60.335):

Instead of using the equation in Condition 7.9.7(b)(i) (see also 40 CFR 60.335(b)(1)), manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in 40 CFR 60.8 to ISO standard day conditions. These factors are developed for each gas turbine model they manufacture in terms of combustion inlet pressure, ambient air pressure, ambient air humidity, and ambient air temperature. They shall be substantiated with data and must be approved for use by the Illinois EPA and/or USEPA before the initial performance test required by 40 CFR 60.8. Notices of approval of custom ambient condition correction factors will be published in the Federal Register [40 CFR 60.335(f)(1)].

7.9.8 Monitoring Requirements

a. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60 Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in an affected gas turbine. The frequency of determination of these values shall be determined and recorded daily if the turbine is supplied its fuel without intermediate bulk storage. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Illinois EPA and/or USEPA before they can be used [40 CFR 60.334(b)(2)].

b. Custom Fuel Sample Schedule for Nitrogen.

Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine associated with the affected cogeneration plant.

c. Custom Fuel Sample Schedule for Sulfur.

i. Analysis for fuel sulfur content of the natural gas fired in the gas turbine associated with the affected cogeneration plant shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are specified in Condition 7.9.7(d) (see also 40 CFR 60.335(d)).

ii. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content and indicates consistent compliance with Condition 7.9.3(c)(ii) (see also 40 CFR 60.333), then sulfur monitoring shall be conducted once per quarter for six quarters.

iii. If after the monitoring required in Condition 7.9.8(c)(i), the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under Condition 7.9.3(c)(ii) (see also 40 CFR 60.333), sampling analysis shall be conducted twice per year. This monitoring shall be conducted during the first and third quarters of each calendar year.

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 cogeneration plant to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.9.3, and 7.9.6, pursuant to Section 39.5(7)(b) of the Act:

a. An operating log for each affected gas turbine that includes the information required by Condition 5.6.8 (see also 40 CFR 60.7(b)).

b. A file that includes the information required by 40 CFR 60.7(f), including the nitrogen content of the fuel relied upon, if greater than zero, to determine the applicable standard pursuant to Condition 7.9.3(c)(i) and show compliance with such standard.

c. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows.

The Illinois EPA or USEPA, upon notification to the source, may require the owner or operator to maintain all measurements as required by Condition 7.9.9(b) (see also 40 CFR 60.7(f)), if the Illinois EPA or USEPA determines these records are required to more accurately assess the compliance status of the affected source [40 CFR 60.7(f)(3)].

d. Records of the testing pursuant to Condition 7.9.7, which include the following [Section 39.5(7)(e) of the Act]:

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

ii. The date(s) analyses were performed;

iii. The company or entity that performed the analyses;

iv. The analytical techniques or methods used;

v. The results of such analyses; and

vi. The operating conditions as existing at the time of sampling or measurement.

e. Natural gas fuel usage for the gas turbine and duct burner, Mft^3/mo and Mft^3/yr; and

f. Monthly and annual aggregate CO, NO_x, PM, SO_2, and VOM emissions from the affected cogeneration plant shall be maintained, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected cogeneration plant 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 40 CFR 60.334(c), periods of excess emissions that shall be reported are defined as follows:

i. Nitrogen oxides. Any period in which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required by Condition 7.9.7. Each report shall include the average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under Condition 7.9.7(a) (see also 40 CFR 60.335(a)) [40 CFR 60.334(c)(1)].

ii. Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine may not comply with Condition 7.9.3(c)(ii) [40 CFR 60.334(c)(2)].

b. Should any sulfur analysis as required by Condition 7.9.8(c) indicate noncompliance with Condition 7.9.3(c)(ii) (see also 40 CFR 60.333), the owner or operator shall notify the Illinois EPA of such excess emissions and the custom schedule specified in Condition 7.9.8(c) shall be re-examined the Illinois EPA. Sulfur monitoring shall be conducted weekly during the interim period when this custom scheduled is being re-examined.

c. If there is a change in fuel supply, the owner or operator shall notify the Illinois EPA of such change for re-examination of the custom schedule specified in Conditions 7.9.8(b) and (c). A substantial change in

fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when the custom schedule specified in Conditions 7.9.8(b) and (c) is being re-examined.

d. Emissions of CO, NO_x, and/or VOM from the affected cogeneration plant in excess of the limits specified in Conditions 5.5.3 and/or 7.9.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

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 Conditions 7.9.3(d) and (e) is assumed by the work-practices inherent in operation of a natural gas-fired gas turbine and natural gas-fired duct burner, so that no compliance procedures are set in this permit addressing these regulations.

b. To determine compliance with Conditions 5.5.1, 5.5.3, 7.9.3, and 7.9.6, natural gas combustion emissions from the affected cogeneration plant shall be calculated based on the following emission factors:

i. Natural gas combustion emissions from gas turbine:

A. Emissions of CO and NO_x:

Pollutant	Emission Factor (lb/Mft^3)
CO	112.27
NO_x	155.53

These are the emission factors for CO and NO_x for the Solar Centaur Taurus gas turbine supplied by the manufacturer.

Gas Turbine Emissions (lb) = (Natural Gas

Consumption, Mft^3) x (The Appropriate Emission Factor, lb/Mft^3)

B. Emissions of PM, SO_2, and VOM:

Pollutant	Emission Factor (lb/mmBtu)
PM	6.6×10^3
SO_2	0.94 S
VOM	2.1×10^{-3}

These are the emission factors for PM and SO_2 from uncontrolled natural gas-fired gas turbines, Table 3.1-2a, AP-42, Volume I, Fifth Edition, Supplement F, April, 2000. S indicates that the weight % of sulfur in the fuel should be multiplied by the value given.

Gas Turbine Emissions (lb) = (Natural Gas Consumed, Mft^3) x (Heat Content, Btu/scf) x (1,000,000 scf/Mft^3) x (1 mmBtu/1,000,000 Btu) x (The Appropriate Emission Factor, lb/mmBtu)

i. Natural gas combustion emissions from duct burner:

A. Emissions of CO and NO_x:

Pollutant	Emission Factor (lb/Mft^3)
CO	35.0
NO_x	33.3

These are the emission factors for CO and NO_x for the Davis Combustion Model EP-091 duct burner supplied by the manufacturer.

B. Emissions of PM, SO_2, and VOM:

Pollutant	Emission Factor (lb/Mft^3)
PM	7.6

SO_2	0.6
VOM	5.5

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, Fifth Edition, Supplement D, March, 1998.

Duct Burner Emissions (lb) = (Natural Gas Consumption, Mft^3) x (The Appropriate Emission Factor, lb/Mft^3)

7.10 Unit EU-11 New Natural Gas-Fired Boiler

7.10.1 Description

A new 96 mmBtu/hr natural gas-fired boiler, which is capable of producing up to 80,000 lb of steam per hour, was installed in 2000 for general plant usage.

7.10.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
EU-11	Nebraska Boiler/Coen Model NS-F-61 Natural Gas-Fired Boiler (96 mmBtu/hr)	None

7.10.3 Applicability Provisions and Applicable Regulations

a. Boiler EU-11 is an “affected boiler” for the purpose of these unit-specific conditions.

b. The affected boiler is subject to the emission limits identified in Condition 5.2.2.

c. The affected boiler is subject to the NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subparts A and Dc, because the affected boiler has a maximum design heat input capacity of 29 MW (100 mmBtu/hr) or less, but greater than or equal to 2.9 MW (10 mmBtu/hr) and construction, modification, or reconstruction of the affected boiler commenced after June 9, 1989.

d. No person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

7.10.4 Non-Applicability of Regulations of Concern

a. The affected boiler is not subject to 35 IAC 217.121, emissions or nitrogen oxides from new fuel combustion emission sources, because the actual heat input of each of these affected boilers is less than 73.2 MW (250 mmBtu/hr).

b. Pursuant to 35 IAC 215.303, fuel combustion emission units are not subject to 35 IAC 215.301, Use Of Organic Material.

7.10.5 Operational and Production Limits and Work Practices

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

7.10.6 Emission Limitations

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

a. Emissions of NO_x, CO, SO_2, PM, and VOM from the affected boiler shall not exceed 31.52, 31.1, 0.25, 2.1, and 1.68 tons/year, respectively.

b. The above limitations were established in Permit 00060074, 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].

c. 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).

7.10.7 Testing Requirements

None

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 boiler to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.10.3, and 7.10.6, pursuant to Section 39.5(7)(b) of the Act:

a. The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day [40 CFR 60.48c(g)].

b. Natural gas fuel usage for the affected boiler, Mft^3/mo and Mft^3/yr; and

c. Monthly and annual aggregate CO, NO_x, PM, SO_2, and VOM emissions from the affected boiler shall be maintained, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.10.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations 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:

a. Pursuant to 40 CFR 60.48c, the owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 40 CFR 60.7. This notification shall include:

i. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility [40 CFR 60.48c(a)(1)].

ii. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired [40 CFR 60.48(a)(3)].

b. Emissions of CO, NO_x, and/or VOM from the affected boiler in excess of the limits specified in Conditions 5.5.3 and/or 7.10.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

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:

a. Compliance with Conditions 7.10.3(b) and (d) is assumed by the work-practices inherent in operation of a natural gas-fired boiler, so that no compliance procedures are set in this permit addressing this regulation.

b. To determine compliance with Conditions 5.5.1, 5.5.3, and 7.10.6, emissions from the affected boiler shall be calculated based on the following emission factors:

Pollutant	Emission Factor (lb/Mft^3)
CO	84
NO_x	100
PM	7.6
SO_2	0.6
VOM	5.5

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, Fifth Edition, Supplement D, March, 1998.

Boiler Emissions (lb) = (Natural Gas Consumption, Mft^3) x (The Appropriate Emission Factor, lb/Mft^3)

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 _____**{insert public notice start date}** (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 that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

c. The changes do not constitute a modification under Title I of the CAA;

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and

e. 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. This notice shall:

i. Describe the physical or operational change;

ii. Identify the schedule for implementing the physical or operational change;

iii. 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;

iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and

v. 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

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, 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
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
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)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

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 authorized by this permit; 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 authorized by this permit.

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 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 - Net VOM Emissions Increase Determination for Permit 96040093

Table 1
Limits on VOM Emissions from 3A Alcohol Usage

Baseline VOM Emissions from Previous 3A Alcohol Usage*	292 tons/year
Increase from Construction Permit 96040093	+ 26 tons/year
New Source-wide Allowable VOM Limit for 3A Alcohol Emissions	318 tons/year

* Value determined from 1994 data on alcohol usage and a liquid density of 6.64 lb/gallon.

Table 2
Limits on Total Source-wide VOM Emissions

New Source-wide Allowable VOM Limit for 3A Alcohol Emissions	318 tons/year
Previous Source-wide Allowable for Other VOM Emissions	+ 9 tons/year
New Source-wide Allowable VOM Emissions	327 tons/year

10.2 Attachment 2 - Net NO_x Emissions Increase Determination for Permit 99030105

Table 1
Potential NO_x Emissions from the Cogeneration Plant

Emission Unit	Fuel	Usage (Mft^3/yr)	Emission Factor (NO_x) (lb/Mft^3)	NO_x Emissions (Ton/yr)
Gas Turbine	Natural Gas	480	155.53	41.19
Duct Burner	Natural Gas	417	33.30	6.98
			Total:	48.17

Emission factors for NO_x in Table 1 are obtained from the manufacturer's calculations.

Table 2
NO_x Emission Offsets from the Existing Cogeneration Plant

Emission Unit	Fuel	Usage (Mft^3/yr)	Emission Factor (NO_x) (lb/Mft^3)	NO_x Emissions (Ton/yr)
Duct Burner	Natural Gas	203.4	33.3	3.39
Gas Turbine	Natural Gas	471.2	148.0	34.86
			Total Emission Offset:	38.25

The NO_x emissions from Table 2 were obtained by averaging the gas usage for the years 1996 and 1998 and multiplying by the appropriate emission factor. Natural gas usage for 1997 was below normal and is therefore not representative. The NO_x emission factor for the turbine was obtained from AP-42 and the NO_x emission factor for the duct burner was obtained from the manufacturer's calculations.

Table 3
Net Contemporaneous Change in NO_x Emissions

Potential NO_x Emissions from the Cogeneration Plant	48.14 tons/year
Emissions Offsets from the Existing Cogeneration Plant	- 38.25 tons/year
Net Contemporaneous Change in NO_x Emissions	9.89 tons/year

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;
- Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or
- Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application

of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.

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; and
- Are not required to be processed as a significant permit modification.

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 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

Application For Construction Permit (For CAAPP Sources Only)	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?		☐ Yes ☐ 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? ☐ Owner ☐ Operator	20.	All correspondence to: (check one) ☐ Owner ☐ Operator ☐ 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.

22. Technical contact person for application:	23. Contact person's telephone number:

Summary Of Application Contents

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?	☐ Yes ☐ 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?	☐ Yes ☐ 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?	☐ Yes ☐ No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	☐ Yes ☐ 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.	☐ Yes ☐ 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?	☐ Yes ☐ No ☐ 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.

Signature Block

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.

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

Aventis Behring LLC (formerly, Centeon, LLC) is located at Route 50 North and Armour Road in Bradley. The source produces prescription and diagnostic pharmaceuticals. Products manufactured at this source include, but are not limited to, human plasma fractionation products and biochemicals from animal glands and bovine plasma. The production facility includes reactor tanks, filter presses, dryers, centrifuges, and other miscellaneous process equipment. In addition, bulk material receiving, storing, and handling are comprised of aboveground storage tanks used for storage of alcohol.

II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit	Description	Date Constructed	Emission Control Equipment
Alcohol Cooling	Alcohol Cooling and Circulation System (EU-1)	1995	None
Alcohol Evaporator	1,700 Gallon Buffalo Technologies Corp. Alcohol Evaporator (EU-1A)	1997	Primary and Secondary Condensers
Alcohol Pumps	Twelve (12) Precision Control Product Model DSH3951-143E Alcohol Delivery Pumps (EU-1)	Unknown	None
Boiler #1	Babcock and Wilcox Model FJ18 Natural Gas-Fired Boiler (42 mmBtu/hr, EU-9)	1950	None
Boiler #2	Babcock and Wilcox Model FJ18 Natural Gas-Fired Boiler (42 mmBtu/hr, EU-9)	1950	None
Buffer Pumps	Two (2) Precision Control Product Model DSH3951-143E Buffer Pumps (EU-1)	Unknown	None
Buffer Tanks 230 Gal	Three (3) 230 Gallon Buffer Tanks (EU-1)	Unknown	None
Buffer Tanks 250 Gal	Four (4) 250 Gallon Buffer Tanks (EU-1)	Unknown	None
Cogen Boiler	Energy Recovery Int. Waste Heat Recovery Boiler (0 mmBtu/hr, EU-10)	September, 1992	None
Cogen Duct Burner	Davis Combustion Model EP-091 Natural Gas-Fired	September, 1992	None

	Duct Burner (49.15 mmBtu/hr, EU-10)		
Cogen Gas Turbine	Solar Turbines, Inc. Centaur Taurus Natural Gas-Fired Gas Turbine (62.8 mmBtu/hr, EU-10)	May, 1999	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
EU-4	Plasma Derivative Parenteral (Bottling and Packaging of Pharmaceutical Products)	After 1972	None
EU-7	Wastewater Treatment Plant (pH Adjustment and Triple Basin Aeration System)	December, 1972	Packed Bed Scrubber
EU-8	Goder Model #10497 Natural Gas-Fired Incinerator (Incinerator No. 1)	1953	Secondary Combustion Chamber
EU-11	Nebraska Boiler/Coen Model NS-F-61 Natural Gas-Fired Boiler (96 mmBtu/hr)	September, 2000	None
Filter Press 18"	18 Inch Sperry Filter Press (EU-1)	Unknown	None
Filter Press 24"	Thirteen (13) 24 Inch Sperry Filter Presses (EU-1)	Unknown	None
Filter Press Cold Room	36 Inch Sperry Model #474849 Cold Room Filter Press (EU-2)	After 1972	None
I0001	1,500 Gallon Northland Stainless Reactor Tank (#78, EU-2)	After 1972	None
I0002	1,500 Gallon Northland Stainless Reactor Tank (#80, EU-2)	After 1972	None
I003	1,500 Gallon Northland Stainless Reactor Tank (#81, EU-2)	After 1972	None
I004	1,500 Gallon Northland Stainless Reactor Tank (#77, EU-2)	After 1972	None
Ice Bath	700 Liter 3A Alcohol and Dry Ice Bath (EU-2)	Prior to 1972	None
K2263	200 Sq. Ft. Osmonics Model #420T-05 Ultrafilter (EU-2)	After 1972	None
K3674	1,190 Gallon Precision	1993	None

	Stainless Buffer and Product Tank (#2, Gammar P-IV Production)		
K3675	1,190 Gallon Precision Stainless Buffer and Product Tank (#3, Gammar P-IV Production)	1993	None
K3676	380 Gallon Precision Stainless Ultrafiltration Tank (Gammar P-IV Production, EU-1)	1993	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
K3702	26.4 Gallon Northland Stainless 3A Alcohol Buffer Tank (Gammar P-IV Production, EU-1)	1993	None
K4425	50 Sq. Filtron Maxisette 50 AT Meter Ultrafilter (Gammar P-IV Production, EU-1)	1993	None
K6529	Letsch Corporation Model EMF-2000 Cartridge Filter (Gammar P-IV Production, EU-1)	1980	None
L2753	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2758	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2763	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2768	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2855	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L2860	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L3452	1,000 Gallon Reactor (EU-2)	Unknown	None
L4088	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L4091	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L4428	7,000 Gallon Tank (#69, EU-2)	Prior to 1972	None
L4511	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L5013	42 Inch Sperry Model #M513 Filter Press (#111, EU-2)	Prior to 1972	None
L5031	1,000 Gallon Pfaudler Reactor Tank (#44, EU-2)	Prior to 1972	None
L5032	1,000 Gallon Pfaudler Reactor Tank (#45, EU-2)	Prior to 1972	None
L5041	1,000 Gallon Pfaudler Reactor Tank (#36, EU-2)	Prior to 1972	None
L5610	2,000 Gallon Will-Flow Corporation Reactor Tank (#46, EU-2)	Prior to 1972	None

L6300	Stokes Tray Vacuum Dryer (EU-2)	Prior to 1972	None
L6348	1,000 Gallon Chem-Tek Reactor Tank (#72, EU-2)	After 1972	None
L6511	20 Gallon Buchner Filter Funnel (EU-2)	Unknown	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
L6722	4,500 Gallon Walker Model #SP6463 Reactor Tank (#74, EU-2)	After 1972	None
L6723	4,500 Gallon Walker Model #SP6463 Reactor Tank (#75, EU-2)	After 1972	None
L6792	36 Inch Sperry Cold Room Filter Press (EU-2)	After 1972	None
L6985	750 Gallon Walker Model #SP6100 Reactor Tank (#33, EU-2)	After 1972	None
L6986	750 Gallon Walker Model #SP6100 Reactor Tank (#43, EU-2)	After 1972	None
L7614	100 Gallon Pfaudler Reactor (EU-2)	After 1972	None
L8038	1,500 Gallon Walker Model #SP6375 Reactor Tank (#29, EU-2)	After 1972	None
L9004	12-14 gpm Pfaudler Distillation Column (EU-1)	1952	Condenser
LM 5014	42 Inch Sperry Model #M513 Filter Press (#107, EU-2)	Prior to 1972	None
LM 5015	42 Inch Sperry Model #M513 Filter Press (#104, EU-2)	Prior to 1972	None
LM5085	1,000 Gallon Reactor Tank (#28, EU-2)	Unknown	None
LM6352	1,500 Gallon Walker #SP4717 Reactor Tank (#30, EU-2)	After 1972	None
NC2807	300 Sq. Ft. Triclover Ultrafilter (EU-2)	After 1972	None
Reactor 66 Gal	66 Gallon Reactor Tank (EU-1)	Unknown	None
Reactor 132 Gal	132 Gallon Reactor Tank (EU-1)	Unknown	None
Slop Alcohol Pumps	Three (3) Grundfos Model #9438 Slop Alcohol Pumps (EU-1)	1994	None
Storage Tank #1	10,800 Gallon Pfaudler Salvage 3A Alcohol (Ethyl Alcohol/Water) Storage Tank (EU-6)	1950	None
Storage Tank #2	10,800 Gallon Pfaudler Salvaged 3A Alcohol	1950	None

	Storage Tank (EU-6)		
Storage Tank #3	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #4	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank (EU-6)	1950	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Storage Tank #5	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #6	10,800 Gallon Pfaudler Recovered 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #7	10,800 Gallon Pfaudler New 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #8	10,800 Gallon Pfaudler New 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #19	5,000 Gallon Slop 3A Alcohol Storage Tank (EU-6)	1950	None
Storage Tank #20	11,200 Gallon Dairy Craft, Inc. Slop 3A Alcohol Storage Tank (EU-6)	1980	None
Storage Tank #21	11,200 Gallon Dairy Craft, Inc. Slop 3A Alcohol Storage Tank (EU-6)	1980	None
Tank #1	1,506 Gallon Walker Reactor Tank (EU-1)	1971	None
Tank #2	1,506 Gallon Walker Model SP6181 Reactor Tank (EU-1)	1975	None
Tank #3	1,506 Gallon Walker Model SP6375 Reactor Tank (EU-1)	1977	None
Tank #4	2,008 Gallon DCI Reactor Tank (EU-1)	1979	None
Tank #5	2,008 Gallon DCI Reactor Tank (EU-1)	1979	None
Tank #6	2,008 Gallon DCI Reactor Tank (EU-1)	1979	None
Tank #7	1,506 Gallon Walker Model Mix 3524 Reactor Tank (EU-1)	1985	None
Tank #8	1,506 Gallon Walker Model Mix 3525 Reactor Tank	1985	None

	(EU-1)		
Tank #9	1,506 Gallon Walker Model Mix 4436 Reactor Tank (EU-1)	1987	None
Tank #10	1,506 Gallon Walker Model Mix 4433 Reactor Tank (EU-1)	1987	None
Tank #11	1,506 Gallon Walker Model Mix 4434 Reactor Tank (EU-1)	1987	None
Tank #12	1,506 Gallon Walker Model Mix 4435 Reactor Tank (EU-1)	1987	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Tank #13	1,506 Gallon Walker Reactor Tank (EU-1)	1979	None
Tank #14	1,506 Gallon Mueller Reactor Tank (EU-1)	1978	None
Tank #15	1,506 Gallon Mueller Reactor Tank (EU-1)	1978	None
Tank #16	1,506 Gallon Walker Reactor Tank (EU-1)	1979	None
Tank #17	2,496 Gallon Walker Model Mix 2000 Reactor Tank (EU-1)	1982	None
Tank #18	2,496 Gallon Walker Model Mix 2199 Reactor Tank (EU-1)	1982	None
Tank #19	2,008 Gallon Walker Model Mix 2361 Reactor Tank (EU-1)	1982	None
Tank #20	2,008 Gallon Walker Model Mix 2360 Reactor Tank (EU-1)	1982	None
Tank #21	2,496 Gallon Mueller Reactor Tank (EU-1)	1986	None
Tank #22	2,496 Gallon Mueller Reactor Tank (EU-1)	1986	None
Tank #23	2,496 Gallon Mueller Reactor Tank (EU-1)	1987	None
Tank #24	2,496 Gallon Mueller Reactor Tank (EU-1)	1987	None
Tank #25	1,506 Gallon Walker Model SP6375 Reactor Tank (EU-1)	1976	None
Tank #26 (Flash)	1,000 Gallon Blaw Knox Flash Tank (EU-1)	1940	Condenser L5252
Tank #26 (Reactor)	1,506 Gallon Walker Reactor Tank (EU-1)	1977	None
Tank #27	1,506 Gallon Walker Model Mix 2362 Reactor Tank (EU-1)	1982	None
Tank #28	608 Gallon Mueller Reactor Tank (EU-1)	1983	None
Tank #29	300 Gallon DCI Reactor Tank (EU-1)	1985	None
Tank #30	415 Gallon DCI Reactor Tank (EU-1)	1993	None
Tank #33	1,585 Gallon Precision Stainless Reactor Tank	1993	None

	(EU-1)		
Tank #34	1,585 Gallon Precision Stainless Reactor Tank (EU-1)	1993	None
Tank #36	792 Gallon DCI Mixing Tank (EU-1)	1996	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Tank #37	792 Gallon DCI Mixing Tank (EU-1)	1996	None
Tank #38	792 Gallon DCI Mixing Tank (EU-1)	1996	None
Tank #39	2,536 Gallon DCI Reactor Tank (EU-1)	1996	None
Tank #40	2,536 Gallon DCI Reactor Tank (EU-1)	1996	None
Tank #41	2,536 Gallon DCI Reactor Tank (EU-1)	1996	None
Tank #42	2,536 Gallon DCI Reactor Tank (EU-1)	1996	None
Tank #47	1,000 Gallon Pfaudler Reactor Tank (EU-2)	Unknown	None
Tank #50	1,500 Gallon Walker Model #SP6375 Reactor Tank (EU-2)	After 1972	None
Tank #55	1,500 Gallon Walker Model #SP6375 Reactor Tank (EU-2)	After 1972	None
Tank #58	1,500 Gallon Walker Model #SP6375 Reactor Tank (EU-2)	After 1972	None
Ultrafilter 450	450 Sq. Ft. Millipore Ultrafiltration System (EU-1)	Unknown	None
Ultrafilter 600	600 Sq. Ft. Millipore Ultrafiltration System (EU-1)	Unknown	None
Ultrafilter 700	700 Sq. Ft. Millipore Ultrafiltration System (EU-1)	Unknown	None
Ultrafilter 2000	2000 Sq. Ft. Millipore Ultrafiltration System (EU-1)	Unknown	None
Fugitive PM Emissions	Paved Traffic Areas, Parking Lots, and Roadways	----	None
Fugitive VOM Emissions	Deconahol Aerosol Usage	----	None

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Nitrogen Oxides (NO_x)	77.20
Particulate Matter (PM)	10.14
Sulfur Dioxide (SO_2)	0.64
Volatile Organic Material (VOM)	318.40
HAP, not included in VOM or PM	----
TOTAL	406.38

This permit is a combined Title I/CAAPP permit that 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 by T1, T1R, or T1N. The source has requested that the Illinois EPA establish or revise such conditions in a Title I permit, consistent with the information provided in the CAAPP application. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board’s emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the 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.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 164.

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