

- b. The sulfur dioxide emissions from each boiler shall comply with the applicable limit of the NSPS, 40 CFR 60.42c(d).
 - c. The opacity from each boiler shall not exceed 20 percent except for one six-minute period per hour of not more than 27 percent opacity pursuant to 40 CFR 60.43c(c). This limit applies at all times except during startup, shutdown or malfunction, as defined at 40 CFR 60.2.
 - d. Pursuant to 40 CFR 60.11(d), the Permittee shall at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.
- 3a. 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 Ill. Adm. Code 212.122, pursuant to 35 Ill. Adm. Code 212.123(a), except as allowed by 35 Ill. Adm. Code 212.123(b) and 212.124.
- b. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hr of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmBtu).
- 4a. Pursuant to 35 Ill. Adm. Code 214.122(b)(2), no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmBtu/hr), burning liquid fuel exclusively to exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).
- b. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, pursuant to 35 Ill. Adm. Code 214.301.
 - c. Pursuant to 35 Ill. Adm. Code 214.304 the emissions from the burning of fuel at process emission units located in the Chicago or St. Louis (Illinois) major metropolitan areas shall comply with Condition 4(b) (see also 35 Ill. Adm. Code Part 214 Subparts B through F).
5. No person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air, pursuant to 35 Ill. Adm. Code 216.121.
- 6a. Pursuant to 35 Ill. Adm. Code 218.122(b), no person shall cause or allow the loading of any organic material into any stationary tank

having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code Part 201 or unless such tank is a pressure tank as described in 35 Ill. Adm. Code 218.121(a) or is fitted with a recovery system as described in 35 Ill. Adm. Code 218.121(b) (2).

- b. Pursuant to 35 Ill. Adm. Code 218.583(a) and (b), no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank with a capacity of 575 gallons or more (unless tank has a capacity of 2,000 gallons or less and was in place and operational prior to January 1, 1979) at a gasoline dispensing operation unless:
 - i. The tank is equipped with a submerged loading pipe; and
 - ii. The vapors displaced from the storage tank during filling are processed by a vapor control system that includes one or more of the following:
 - A. A vapor collection system that meets the requirements of 35 Ill. Adm. Code 218.583(d) (4); or
 - B. A refrigeration-condensation system or any other system approved by the Illinois EPA that recovers at least 90 percent by weight of all vaporized organic material from the equipment being controlled; and
 - C. The delivery vessel displays the appropriate sticker pursuant to the requirements of 35 Ill. Adm. Code 218.584(b) or (d); and
 - iii. All tank vent pipes are equipped with pressure/vacuum relief valves with the following design specifications:
 - A. The pressure/vacuum relief valve shall be set to resist a pressure of at least 3.5 inches water column and to resist a vacuum of no less than 6.0 inches water column; or
 - B. The pressure/vacuum relief valve shall meet the requirements of 35 Ill. Adm. Code 218.586(c); and
 - iv. The owner or operator of a gasoline dispensing operation demonstrates compliance with 35 Ill. Adm. Code 218.583(a) (3)), 30 days after installation of each pressure/vacuum relief valve, whichever is later, and at least annually thereafter, by measuring and recording the pressure indicated by a pressure/vacuum gauge at each tank vent pipe. The test shall be performed on each tank vent pipe within two hours after product delivery into the respective storage tank. For manifold tank vent systems, observations at any point within the system shall

be adequate. The owner or operator shall maintain any records required by this Condition for a period of three years.

- c. Pursuant to 35 Ill. Adm. Code 218.583(c), each owner of a gasoline dispensing operation shall:
 - i. Install all control systems and make all process modifications required by 35 Ill. Adm. Code 218.583(a);
 - ii. Provide instructions to the personnel operating the gasoline dispensing facility describing necessary maintenance operations and procedures for prompt notification of the Permittee in case of any malfunction of a vapor balance system; and
 - iii. Repair, replace or modify any worn out or malfunctioning component or element of design.
- d. Pursuant to 35 Ill. Adm. Code 218.583(d), each operator of a gasoline dispensing operation shall:
 - i. Maintain and operate the system in accordance with the established procedures and instructions;
 - ii. Promptly notify the owner of any scheduled maintenance or malfunction requiring replacement or repair of a major component of a vapor control system;
 - iii. Maintain gauges, meters, or other specified testing devices in proper working order; and
 - iv. Operate the vapor balance system and delivery vessel unloading points in a manner that prevents:
 - A. A reading equal to or greater than 100 percent of the lower explosive limit (LEL measured as propane) when tested in accordance with the procedure described in EPA 450/2-78-051 Appendix B; and
 - B. Avoidable leaks of liquid during the filling of storage tank.
- 7a. Distillate fuel shall be the only fuel used in the boilers and generators at this source.
- b. At the above location, the Permittee shall not keep, store, or utilize in the boilers and generators at this source:
 - i. Distillate fuel oil (Grade No. 1 and 2) with a sulfur content greater than the larger of the following two values:
 - A. 0.28 weight percent, or

B. The Wt percent given by the formula: Maximum Wt percent sulfur = (0.000015) x (Gross heating value of oil, Btu/lb).

ii. Organic liquid by-products or waste materials shall not be used in the boilers and generators without written approval from the Illinois EPA.

c. The Illinois EPA shall be allowed to sample all fuels stored at the above location.

8a. The cooling towers shall each be equipped, operated and maintained with drift eliminators or other comparable features designed to limit the loss of water droplets from the cooling tower to not more than 0.008% of the circulating water flow (0.00008 drift).

9a. Total usage of distillate fuel oil for the boilers shall not exceed 321,670 gallons per month and 1,930,000 gallons per year.

b. Emissions from the three boilers shall not exceed the following limits:

<u>Pollutant</u>	<u>Emission Rate</u>	<u>Emissions</u>	
	<u>(lb/1,000 Gallons)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
NO _x	20.0	3.22	19.30
CO	5.0	0.81	4.82
SO ₂	39.76	6.40	38.37
VOM	0.34	0.01	0.33
PM	2.0	0.32	1.93

These limits are based on standard emission factors (Tables 1.3-2 and 1.3-3, AP-42, Volume I, Fifth Edition, Supplement E, September 1998) for uncontrolled distillate combustion in commercial/institutional/residential combustors and the maximum monthly and annual distillate fuel oil usage of the boilers.

10a. Total usage of distillate fuel oil for large engines (generators and other engines with a capacity greater than 600 horsepower each) shall not exceed 40,000 gallons per month and 240,000 gallons per year.

b. Emissions from the five large diesel engines shall not exceed the following limits:

<u>Pollutant</u>	<u>Emission Rate</u>	<u>Emissions</u>	
	<u>(lb/mmBtu)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
NO _x	3.20	8.97	53.80
CO	0.85	2.38	14.30
SO ₂	0.2828	0.79	4.75
VOM	0.09	0.26	1.54
PM	0.0697	0.20	1.19

These limits are based on standard emission factors (Table 3.4-1, AP-42, Volume I, Fifth Edition, Supplement B, October 1996) for large stationary diesel engines, a conversion factor of 140,000 Btu/gallon of distillate oil, and the maximum monthly and annual distillate fuel oil usage for the generators.

- 11a. Total usage of distillate fuel oil for the small engines with a capacity of 600 horsepower each or smaller shall not exceed 12,000 gallons per month and 72,000 gallons per year.
- b. Emissions from the small engines shall not exceed the following limits:

<u>Pollutant</u>	<u>Emission Rate</u>	<u>Emissions</u>	
	<u>(Lb/mmBtu)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
NO _x	4.41	3.70	22.20
CO	0.95	0.82	4.87
SO ₂	0.29	0.25	1.48
VOM	0.36	0.31	1.84
PM	0.31	0.27	1.60

These limits are based on standard emission factors (Table 3.3-1, AP-42, Volume I, Fifth Edition, Supplement B, October 1996) for Diesel Industrial Engines, a conversion factor of 140,000 Btu/gallon of distillate oil, and the maximum monthly and annual distillate fuel oil usage for the generators.

- 12a. Annual throughput of gasoline through the gasoline storage tank shall not exceed 8,000 gallons/month and 50,000 gallons/year.
- b. VOM emissions from the gasoline storage tank shall not exceed the following limits:

<u>(Lb/1,000 Gallon)</u>	<u>(lb/Month)</u>	<u>(Ton/Year)</u>
13.0	104	0.33

These limits are based on the maximum gasoline throughput of the 6,000 gallon storage tank and gasoline dispensing operation and standard emission factors (Table 5.2-7, AP-42, Volume I, Fifth Edition, December 1995). The overall emission factor of 13.0 lbs VOM/1,000 gallon of gasoline throughput is the sum of the emission factors for balanced submerged filling of underground tank (Stage I) (0.3 lbs/1,000 gallon), underground tank breathing and emptying (1.0 lbs/1,000 gallon), vehicle filling displacement losses (uncontrolled) (1.1 lbs/1,000 gallon), and vehicle filling spillage (0.7 lbs/1,000 gallon).

- 13. The particulate matter (PM₁₀) emissions from all 54 cooling tower cells shall not exceed 74.6 tons/year, in total. This limit is based on information in the application indicating a nominal emission rate of 0.32 lb/hour for each cooling tower cell operating at a design flow

rate of 17,750 gallons/minute and continuous operation of all 54 cooling tower cells.

14. 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).
- 15a. Pursuant to 35 Ill. Adm. Code 212.109, and 212.110, testing for particulate matter emissions shall be performed as follows:
 - i. Except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, incorporated by reference in 35 Ill. Adm. Code 212.113, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.
 - ii. Measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR part 60, Appendix A, Methods 5, 5A, 5D, or 5E.
 - iii. The volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4.
 - iv. Upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- b. Within 15 business days after discovery of the leak by the owner, operator, or the Illinois EPA, repair and retest a vapor collection system which exceeds the limits of 35 Ill. Adm. Code 218.583(d) (4) (A), pursuant to 35 Ill. Adm. Code 218.583(d) (5).
- 16a. Pursuant to 40 CFR 60.48c(e) (11), if fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under 40 CFR 60.48c(f) (1), (2), or (3), as

applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

- b. Pursuant to 40 CFR 60.48c(g), the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/mmBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month
- c. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- d. Pursuant to 35 Ill. Adm. Code 218.129(f), each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 IAC Parts 218 or 219 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel;
- e. The Permittee shall maintain records of the following items to demonstrate compliance with the conditions of this permit:
 - i. An inspection, maintenance, and repair log for the gasoline dispensing facility that shall list activities performed that relate to control of emissions, with date, description and responsible individual.
 - ii. Design information for the tanks showing the presence of a permanent submerged loading pipe in the gasoline storage tanks;
 - iii. Maintenance and repair records for the tanks, as related to the repair or replacement of the loading pipe in the gasoline storage tanks;
 - iv. Gasoline throughput of the gasoline storage tanks (gallons/month and gallons/year).
 - v. Fuel oil usage for the (boilers, (gallons/month and gallons/year);
 - vi. Fuel oil usage for the large engines (gallons/month and gallons/year);
 - vii. Fuel oil usage for the small engines, (gallons/month and gallons/year);

- viii. Monthly and annual emissions of VOM from the gasoline storage tanks/gasoline dispensing operation with supporting calculations (tons/month and tons/year),
 - ix. Monthly and annual emissions of CO, NO_x, PM, SO₂, and VOM for the generators and the boilers, with supporting calculations (tons/month and tons/year);
- f. The Permittee shall keep the following records for cooling towers with supporting data.
- i. The following reference information for the cooling towers, which shall be updated in the event of significant changes to the operation of the tower:
 - A. Cooling water drift rate (gallons/hour) based on representative operation of the cooling towers; and
 - B. Cooling water total solids (total dissolved solids (TDS) and total suspended solids) content, based on representative sampling of water discharge.
 - ii. The following operating records for each tower:
 - A. Operation of cooling towers (e.g., log for gallons of water processed each day or number of towers operating each hour).
 - B. Total operation of cooling towers (e.g., gallons processed for month or operating hours/month); and
 - C. Emissions of particulate matter (tons/year), with supporting calculations.
17. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 18a. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.

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

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

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

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

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

If you have any questions concerning this permit, please call Dwayne Booker at 217/782-2113.

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

DES:DLB:psj

cc: IEPA, FOS, Region 1

Lotus Notes

Attachment A

This attachment provides a summary of the maximum emissions from the source operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario that results in maximum emissions from this source. This is handling 2,242,000 gallons of distillate fuel oil. The resulting maximum emissions are below the levels (e.g., 100 tons per year of NO_x) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Emission Units</u>	<u>EMISSIONS (Tons Per Years)</u>					
	<u>NO_x</u>	<u>CO</u>	<u>SO₂</u>	<u>VOM</u>	<u>PM</u>	<u>PM₁₀</u>
Three Boilers	19.30	4.82	38.37	0.33	1.93	1.93
Five Large Diesel Engines	53.80	14.30	4.75	1.54	1.19	1.19
Small Diesel Engines	22.20	4.87	1.48	1.84	1.60	1.60
54 Cooling Tower Cells					74.6	74.6
All Gasoline Storage and Handling				<u>0.33</u>		
Totals:	<u>95.30</u>	<u>24.00</u>	<u>44.60</u>	<u>4.04</u>	<u>79.32</u>	<u>79.32</u>

DLB:psj