

217/782-2113

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

PERMITTEE

ANR Pipeline Company
Attn: Manish Singh
717 Texas Ave., Suite 2400
Houston Texas 77002

Application No.: 80040029

I.D. No.: 197800AAQ

Applicant's Designation: JOLIET

Date Received: February 13, 2009

Subject: Gas Fired Turbines

Date Issued:

Expiration Date:

Location: Young Road and Route 6, Joliet, Will County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of one (1) 3,888 hp natural gas-fired turbine (Turbine 1), one (1) 1,343 hp natural gas-fired turbine (Turbine 2) one (1) 2.9 mmBtu/hour natural gas-fired boiler, one (1) 200 kW natural gas-fired emergency generator, one (1) 1,250 gallon glycol storage tank (T1), one (1) 1,250 gallon new lube oil storage tank (T2), one 1,250 gallon maintenance lube oil storage tank (T3), one (1) 500 gallon used lube oil storage tank (T4), and one (1) 6,500 gallon storage tank (T5) pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Carbon Monoxide (CO), Nitrogen Oxides (NO_x), and Volatile Organic Material (VOM)). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
- 2a. Turbine 1 and Turbine 2 are subject to the New Source Performance Standard (NSPS) for Stationary Gas Turbines, 40 CFR 60, Subparts A and GG. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and

maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

- c. Pursuant to 40 CFR 60.332(a)(2), on and after the date on which the performance test required by 40 CFR 60.8 is completed, every owner or operator subject to the provisions of 40 CFR 60 Subpart GG as specified in 40 CFR 60.332(b), (c), and (d) shall comply with one of the following, except as provided in 40 CFR 60.332(e), (f), (g), (h), (i), (j), (k), and (l).

- i. 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 nitrogen oxides in excess of:

$$\text{STD} = 0.0150 \frac{(14.4)}{Y} + F$$

where:

STD = allowable ISO corrected (if required as given in 40 CFR 60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated peak 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, and

F = NO_x emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(4).

- ii. The use of F in 40 CFR 60.332(a)(1) and (2) is optional. That is, the owner or operator may choose to apply a NO_x allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with 40 CFR 60.332(a)(4) or may accept an F-value of zero.
- iii. If the owner or operator elects to apply a NO_x emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under 40 CFR 60.8 as follows:

Fuel-bound nitrogen (percent by weight)	F (NO _x percent by volume)
N ≤ 0.015	0
0.015 < N ≤ 0.1	0.04(N)
0.1 < N ≤ 0.25	0.004+0.0067(N-0.1)
N > 0.25	0.005

Where:

N = the nitrogen content of the fuel (percent by weight).

or:

Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Illinois EPA or USEPA before the initial performance test required by 40 CFR 60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

- d. Pursuant to 40 CFR 60.332(c), stationary gas turbines 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 comply with the provisions of 40 CFR 60.332(a)(2).
 - e. Pursuant to 40 CFR 60.332(d), stationary gas turbines with a manufacturer's rated base load at ISO conditions of 30 megawatts or less except as provided in 40 CFR 60.332(b) shall comply with 40 CFR 60.332(a)(2).
 - f. Pursuant to 40 CFR 60.333, on and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, every owner or operator subject to the provision of 40 CFR 60 Subpart GG shall comply with one or the other of the following conditions:
 - i. 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.
 - ii. 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 total sulfur in excess of 0.8 percent by weight (8000 ppmw).
- 3a. This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 Ill. Adm. Code Part 205, pursuant to 35 Ill. Adm. Code 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.
- b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and beginning with the following seasonal allotment period, shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no

more than 15 tons pursuant to a limitation applied for and established in a Clean Air Act Permit Program (CAAPP) permit or a Federally Enforceable State Operating Permit (FESOP).

- c. Pursuant to 35 Ill. Adm. Code 205.316(a), any participating or new participating source shall not operate without a CAAPP permit or FESOP. Pursuant to 35 Ill. Adm. Code 205.316(a)(2), if a participating or new participating source does not have a CAAPP permit containing ERMS provisions and the source elects to obtain a permit other than a CAAPP permit, the source shall apply for and obtain a FESOP that contains, in addition to other necessary provisions, federally enforceable ERMS provisions, including baseline emissions, allotment for each seasonal allotment period, identification of any units deemed to be insignificant activities for purposes of the ERMS, emissions calculation methodologies, and provisions addressing all other applicable requirements of 35 Ill. Adm. Code Part 205.
4. 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.
5. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.
6. 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 liters (250 gallons), unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code 201, and further processed consistent with 35 Ill. Adm. Code 218.108, 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).
7. Pursuant to 35 Ill. Adm. Code 218.122(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).
- 8a. The turbines, boiler, and the emergency generator shall only be operated with natural gas as the fuel. The use of any other fuel in the turbines, boiler, and the emergency generator requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- b. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.

- 9a. Emissions and operation from Turbine 1 shall not exceed the following limits:

Natural Gas Usage			Pollutant	Emission	Emissions		
(mmscf/Day)	(mmscf/Mo)	(mmscf/Yr)		Factor	(Lbs/Day)	(T/Mo)	(T/Yr)
1.29	38.7	387	CO	74.19		1.44	14.36
			NO _x	392.10	508.8		75.88
			PM	26.85		0.52	5.20
			SO ₂	0.17		0.01	0.04
			VOM	111.70		2.17	21.62

These limits are based on the maximum fuel use and emission factors for CO, NO_x, PM, SO₂, and VOM provided by the manufacturer of the turbine.

- b. Emissions and operation from Turbine 2 shall not exceed the following limits:

Natural Gas Usage			Pollutant	Emission	Emissions		
(mmscf/Day)	(mmscf/mo)	(mmscf/Yr)		Factor	(Lbs/Day)	(T/Mo)	(T/Yr)
0.45	13.3	133	CO	277.68		1.85	18.47
			NO _x	256.60	113.8		17.07
			PM	24.26		0.11	1.02
			SO ₂	0.17		0.01	0.02
			VOM	26.50		0.18	1.77

These limits are based on the maximum fuel use and emission factors for CO, NO_x, PM, SO₂, and VOM provided by the manufacturer of the turbine.

- c. Emissions and operation of the Boiler shall not exceed the following limits:

Natural Gas Usage			Pollutant	Emission	Emissions		
(mmscf/Day)	(mmscf/Mo)	(mmscf/Yr)		Factor	(Lbs/Day)	(T/Mo)	(T/Yr)
0.07	2.1	21	CO	84		0.09	0.89
			NO _x	100	7.00		1.05
			PM	7.6		0.01	0.08
			SO ₂	0.6		0.01	0.01
			VOM	5.5		0.01	0.06

These limits are based on the maximum fuel usage, and standard emissions factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- d. Emissions and operation and emissions of the emergency generator shall not exceed the following limits:
- i. Hours of operation: 500 hours/year
 - ii. Emissions from the emergency generator:

<u>Pollutant</u>	Emission Factor		Emissions	
	(lb/mmscf)	(lb/hour)	(Ton/Yr)	
Carbon Monoxide (CO)	2539	6.61	1.65	
Nitrogen Oxides (NO _x)	3816	9.92	2.48	
Particulate Matter (PM)	47	0.12	0.03	
Sulfur Dioxide (SO ₂)	0.588	0.01	0.01	
Volatile Organic Material (VOM)	508	1.32	0.33	

These limits are based on the maximum operating hours for the generator, emission factors for CO, NO_x, PM, , and VOM provided by the manufacturer of the generator, and a standard emission factor for SO₂ (Table 3.2-3, AP 42, Fifth Edition, Volume I, Supplement F, August 2000).

- e. This permit is issued based on negligible emissions of VOM from the five (5) storage tanks (tanks T-1, T-2, T-3, T-4 and T-5). For this purpose emissions from each emission unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
- f. Compliance with the annual limits for NO_x of this permit shall be determined on a daily basis from the sum of the data for the current day plus the preceding 364 days (running 365 day total).
- g. Compliance with the annual limits for CO, PM, SO₂ and VOM of this permit will be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 months total).
- 10. This permit is issued based on the Potential to Emit (PTE) for Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act being less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program (CAAPP) Permit.
- 11a. Pursuant to 40 CFR 60.8(a), at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the owner or operator of such facility shall conduct performance (s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).
- b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:
 - i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
 - ii. Approves the use of an equivalent method;
 - iii. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;

- iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or
 - v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.
- c. Pursuant to 40 CFR 60.8(c), performance tests shall be conducted under such conditions as the Illinois EPA or USEPA shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- d. Pursuant to 40 CFR 60.8(d), the owner or operator of an affected facility shall provide the Illinois EPA or USEPA at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Illinois EPA or USEPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Illinois EPA or USEPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Illinois EPA or USEPA by mutual agreement.
- e. Pursuant to 40 CFR 60.8(e), the owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
- i. Sampling ports adequate for test methods applicable to such facility. This includes:
 - A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test 1 methods and procedures; and
 - B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - ii. Safe sampling platform(s).

- iii. Safe access to sampling platform(s).
 - iv. Utilities for sampling and testing equipment.
 - f. Pursuant to 40 CFR 60.8(f), unless otherwise specified in the applicable subpart of 40 CFR Part 60, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard under 40 CFR Part 60. For the purpose of determining compliance with an applicable standard under 40 CFR Part 60, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Illinois EPA's or USEPA's approval, be determined using the arithmetic mean of the results of the two other runs.
- 12a. Pursuant to 40 CFR 60.335(a), the owner or operator shall conduct the performance tests required in 40 CFR 60.8, using either
- i. EPA Method 20,
 - ii. ASTM D6522-00, or
 - iii. EPA Method 7E and either EPA Method 3 or 3A in appendix A to 40 CFR Part 60, to determine NO_x and diluent concentration.
 - iv. Sampling traverse points are to be selected following Method 20 or Method 1, (non-particulate procedures) and sampled for equal time intervals. The sampling shall be performed with a traversing single-hole probe or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.
 - v. Notwithstanding 40 CFR 60.335(a)(4), the owner or operator may test at few points than are specified in Method 1 or Method 20 if the following conditions are met:
 - A. You may perform a stratification test for NO_x and diluent pursuant to the procedures specified in section 6.5.6.1(a) through (e) appendix A to 40 CFR Part 75.
 - B. Once the stratification sampling is completed, the owner or operator may use the following alternative sample point selection criteria for the performance test:
 - 1. If each of the individual traverse point NO_x concentrations, normalized to 15 percent O₂, is within ±10 percent of the mean normalized concentration for

all traverse points, then you may use 3 points (located either 16.7, 50.0, and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The 3 points shall be located along the measurement line that exhibited the highest average normalized NO_x concentration during the stratification test; or

2. If each of the individual traverse point NO_x concentrations, normalized to 15 percent O₂, is within ±5 percent of the mean normalized concentration for all traverse points, then you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid.

vi. Other acceptable alternative reference methods and procedures are given in 40 CFR 60.335(c).

b. Pursuant to 40 CFR 60.335(b), the owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in 40 CFR 60.332 and shall meet the performance test requirements of 40 CFR 60.8 as follows:

i. For each run of the performance test, the mean nitrogen oxides emission concentration (NO_{xo}) corrected to 15 percent O₂ shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:

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

Where:

NO_x = emission concentration of NO_x at 15 percent O₂ and ISO standard ambient conditions, ppm by volume, dry basis,

NO_{xo} = mean observed NO_x concentration, ppm by volume, dry basis, at 15 percent O₂,

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg,

P_o = observed combustor inlet absolute pressure at test, mm Hg,

H_o = observed humidity of ambient air, g H₂O/g air,

e = transcendental constant, 2.718, and

T_a = ambient temperature, °K.

- ii. The 3-run performance test required by 40 CFR 60.8 must be performed within ± 5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in 40 CFR 60.331).
- iii. For a combined cycle turbine system with supplemental heat (duct burner), the owner or operator may elect to measure the turbine NO_x emissions after the duct burner rather than directly after the turbine. If the owner or operator elects to use this alternative sampling location, the applicable NO_x emission limit in 40 CFR 60.332 for the combustion turbine must still be met.
- iv. If the owner operator elects to claim an emission allowance for fuel bound nitrogen as described in 40 CFR 60.332, then concurrently with each reference method run, a representative sample of the fuel used shall be collected and analyzed, following the applicable procedures described in 40 CFR 60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water (or steam) to fuel ratio will be valid.
- v. If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in 40 CFR 60.335(b)(7)) or as part of the initial performance test of the affected unit.
- vi. If the owner or operator elects to install and certify a NO_x CEMS under 40 CFR 60.334(e), then the initial performance test required under 40 CFR 60.8 may be done in the following alternative manner:
 - A. Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.
 - B. Use the test data both to demonstrate compliance with the applicable NO_x emission limit under 40 CFR 60.332 and to provide the required reference method data for the RATA of the CEMS described under 40 CFR 60.334(b).
 - C. The requirement to test at three additional load levels is waived.
- vii. If the owner or operator elects under 40 CFR 60.334(f) to monitor combustion parameters or parameters indicative of proper operation of NO_x emission controls, the appropriate parameters

shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in 40 CFR 60.334(g).

- viii. To determine the fuel bound nitrogen content of fuel being fired (if an emission allowance is claimed for fuel bound nitrogen), the owner or operator may use equipment and procedures meeting the requirements of, for gaseous fuels, shall use analytical methods and procedures that are accurate to within 5 percent of the instrument range and are approved by the Illinois EPA or USEPA.
 - ix. If the owner or operator is required under 40 CFR 60.334(i) (1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using for gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01. 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 prior approval of the Illinois EPA or USEPA.
 - x. The fuel analyses required under 40 CFR 60.335(b) (9) and (b) (10) 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.
- 13a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon

request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Condition 14 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 14a. Pursuant to 35 Ill. Adm. Code 212.107, for both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR Part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. 35 Ill. Adm. Code 212 Subpart A shall not apply to 35 Ill. Adm. Code 212.301.
- b. Pursuant to 35 Ill. Adm. Code 212.109, except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.
 - c. Pursuant to 35 Ill. Adm. Code 212.110(a), measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 5, 5A, 5D, or 5E.
 - d. Pursuant to 35 Ill. Adm. Code 212.110(b), the volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4.
 - e. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 15a. Pursuant to 40 CFR 60.334(h), the owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60 Subpart GG:

- i. Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.334(h)(3). The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR 60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86, which measure the major sulfur compounds may be used; and
 - ii. Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in 40 CFR 60.332). The nitrogen content of the fuel shall be determined using methods described in 40 CFR 60.335(b)(9) or an approved alternative.
 - iii. Notwithstanding the provisions of 40 CFR 60.334(h)(1), the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 CFR 60.331(u), regardless of whether an existing custom schedule approved by the Illinois EPA or USEPA for 40 CFR 60 Subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:
 - A. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - B. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR Part 75 is required.
- b. Pursuant to 40 CFR 60.334(i), the frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:
- i. Gaseous fuel. Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in 40 CFR 60.334(h)(3), and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.
 - ii. Custom schedules. Notwithstanding the requirements of 40 CFR 60.334(i)(2), operators or fuel vendors may develop custom schedules for determination of the total sulfur content of

gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in 40 CFR 60.334(i)(3)(i) and (i)(3)(ii), custom schedules shall be substantiated with data and shall be approved by the Illinois EPA or USEPA before they can be used to comply with the standard in 40 CFR 60.333.

16. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
- 17a. Pursuant to 40 CFR 60.7(b), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- b. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

18. 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.
19. Pursuant to 35 Ill. Adm. Code 218.129(f), the owner or operator of each storage vessel specified in 35 Ill. Adm. Code 218.119 shall maintain readily accessible records of the dimension of the storage vessel and an analysis of the capacity of the storage vessel. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 Ill. Adm. Code Part 218 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.
- 20a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
 - i. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:
 - A. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
 - B. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures that may be specified in this permit; and
 - C. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.
 - ii. Natural gas consumption of each turbine, boiler, and generator (mmscf/day, mmscf/month and mmscf/year);
 - iii. Daily and annual emissions of NO_x, with supporting calculations (lbs/day, tons/year); and
 - iv. Monthly and annual emission of CO, PM, SO₂, VOM and HAPs with supporting calculations (tons/month, tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

21. If there is an exceedance of or deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance/deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.
22. 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.
23. 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

It should be noted that this permit has been revised at of Permittee to allow compliance with annual limits for CO, PM, SO₂ and VOM to be determined on a monthly basis.

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

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

Date Signed: _____

ECB:GMK:jws

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the pipeline operations in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, (e.g., 100 tons per year of CO, NO_x, and VOM) 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 Unit</u>	E M I S S I O N S (Tons/Year)				
	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>SO₂</u>	<u>VOM</u>
Turbine 1	14.36	75.88	5.20	0.04	21.62
Turbine 2	18.47	17.07	1.02	0.02	1.77
Boiler	0.89	1.05	0.08	0.01	0.06
Emergency Generator	1.65	2.48	0.03	0.01	0.33
Five Storage Tanks	----	----	----	----	<u>2.20</u>
Totals	<u>35.37</u>	<u>96.48</u>	<u>6.33</u>	<u>0.08</u>	<u>25.98</u>

GMK:jws