

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

NALCO Chemical Company
Attn: Joseph K. Ghaben
Corporate & Technical Center
1601 Diehl Road
Naperville, Illinois 60563-1198

Application No.: 96030066

I.D. No.: 043065ABY

Applicant's Designation:

Date Received: March 6, 1996

Subject: Boilers, Generators

Date Issued:

Expiration Date:

Location: 1601 Diehl Road, Naperville

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of 3 boilers and gas turbine with duct burner 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., nitrogen oxides, carbon monoxide and sulfur dioxide less than 100 tons per year each). 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.
2. Emissions and operation of the boilers shall not exceed the following limits:

a. Natural Gas Usage
(10⁶ ft³/Month) (10⁶ ft³/Year)

	8.33	100				
	<u>NO_x</u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>	
	E	M	I	S	S	I O N S
Lb/10 ⁶ ft ³ *	100	84	7.6	5.5	0.6	
Lb/Month	833	700	63	46	5.0	
Ton/Year	5.0	4.2	0.38	0.28	0.03	

* (AP-42, 1.4, Rev. 3/98)

b. Fuel Oil Usage
(Gallon/Month) (Gallon/Year)

	8,333	100,000					
	E M I S S I O N S						
	<u>NO_x</u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>		
Lb/1,000 Gallons*	20	5.0	2.0	0.34	42		
Lb/Month	167	42	17	2.8	350		
Ton/Year	1.0	0.25	0.10	0.02	2.1		

* (AP-42, 1.3, Rev. 10/96)

These limits are based upon standard emission factors (AP-42). Compliance with annual limits shall be determined from a running total of 12 months of data.

3. Emissions and operation of the turbine with duct burner shall not exceed the following limits:

a. Turbine

Natural Gas Usage
(10⁶ ft³/Month) (10⁶ ft³/Year)

	33.3	400					
	E M I S S I O N S						
	<u>NO_x</u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>		
Lb/10 ⁶ ft ³ *	410	88	7.4	2.8	2.3		
Lb/Month	13,653	2,930	246	138	77		
Ton/Year	81.9	17.6	1.5	0.83	0.46		

* (AP-42, 3.1, Rev. 5/98)

b. Duct Burner

Natural Gas Usage
(10⁶ ft³/Month) (10⁶ ft³/Year)

	0.33	4.0					
	E M I S S I O N S						
	<u>NO_x</u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>		
Lb/10 ⁶ ft ³ *	100	84	7.6	5.5	0.6		
Lb/Month	33	28	2.5	1.8	0.2		
Ton/Year	0.20	0.17	0.015	0.011	0.0012		

* (AP-42, 1.4, Rev. 3/98)

These limits are based upon standard emission factors (AP-42). Compliance with annual limits shall be determined from a running total of 12 months of data.

4. The Permittee shall maintain records of the following:
 - a. Natural gas usage (10^6 ft³/month and 10^6 ft³/year); and
 - b. Fuel oil usage (1000 gallon/month and 1000 gallon/year).
5. At the above location, the Permittee shall not keep, store, or utilize:
 - a. distillate fuel oil (Grades No. 1 and 2) with a sulfur content greater than the larger of the following two values:
 - i. 0.28 weight percent, or
 - ii. the wt. percent given by the formula: Maximum wt. percent sulfur = $(0.000015) \times (\text{Gross heating value of oil, BTU/lb})$.
 - b. Organic liquid by-products or waste materials shall not be used in these fuel combustion emission sources without written approval from the Illinois EPA.
 - c. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
6. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
7. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three 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.
8. If there is an exceedance of 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. 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 violation and efforts to reduce emissions and future occurrences.

9. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system 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
Eisenhower Tower
1701 South First Avenue
Maywood, Illinois 60153

10. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: Natural gas and fuel oil usage.

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

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

DES:JPB:psj

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the boilers and turbine operating 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 well below the levels, i. e., nitrogen oxides, carbon monoxide, and sulfur dioxide less than 100 tons per year each, 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 fuel is used and control measures are more effective than required in this permit.

1. Emissions and operation of the boilers shall not exceed the following limits:

- a. Natural Gas Usage
(10⁶ ft³/Month) (10⁶ ft³/Year)

8.33 100

	<u>NO_x</u>	E M I S S I O N S <u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>
Lb/10 ⁶ ft ³ *	100	84	7.6	5.5	0.6
Lb/Month	833	700	63	46	5.0
Ton/Year	5.0	4.2	0.38	0.28	0.03

* (AP-42, 1.4, Rev. 3/98)

- b. Fuel Oil Usage
(Gallon/Month) (Gallon/Year)

8,333 100,000

	<u>NO_x</u>	E M I S S I O N S <u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>
Lb/1,000 Gallons*	20	5.0	2.0	0.34	42
Lb/Month	167	42	17	2.8	350
Ton/Year	1.0	0.25	0.10	0.02	2.1

* (AP-42, 1.3, Rev. 10/96)

2. Emissions and operation of the turbine with duct burner shall not exceed the following limits:

- a. Turbine

- Natural Gas Usage
(10⁶ ft³/Month) (10⁶ ft³/Year)

33.3 400

	<u>NO_x</u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>
Lb/10 ⁶ ft ³ *	410	88	7.4	2.8	2.3
Lb/Month	13,653	2,930	246	138	77
Ton/Year	81.9	17.6	1.5	0.83	0.46

* (AP-42, 3.1, Rev. 5/98)

b. Duct Burner

Natural Gas Usage
(10⁶ ft³/Month) (10⁶ ft³/Year)

0.33 4.0

	<u>NO_x</u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>
Lb/10 ⁶ ft ³ *	100	84	7.6	5.5	0.6
Lb/Month	33	28	2.5	1.8	0.2
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