

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

GE Betz, Inc.
Attn: Mr. Brian Vannoni
333 South Lombard Road
Addison, Illinois 60101-3087

<u>Application No.:</u> 03040026	<u>I.D. No.:</u> 043005ABU
<u>Applicant's Designation:</u>	<u>Date Received:</u> April 10, 2003
<u>Subject:</u> Water Treatment Products	
<u>Date Issued:</u> January 21, 2004	<u>Expiration Date:</u> January 21, 2009
<u>Location:</u> 333 South Lombard Road, Addison	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of 5 general production liquid mixing vessels plus an HCl storage tank, all of which vent to one scrubber, 21 liquid storage tanks, 3 "EP Room" liquid mixing vessels which vent to another scrubber, 2 natural gas-fired boilers, and a truck loading operation 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., 25 tons per year of volatile organic material, 25 tons per year of combined hazardous air pollutants and 10 tons per year of each single HAP). 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 from the 21 liquid storage tanks shall not exceed 11.4 ton/year VOM.

This limit is based on maximum throughput, an average vapor pressure of all materials being 0.35 psia, and TANKS 4.0. Compliance with annual limits shall be determined by adding emissions from the present month to the emissions of the eleven preceding months.

3. This permit is issued based on negligible emissions of volatile organic material (VOM) and particulate matter from all 8 mixing vessels with scrubber. For this reason, emissions of each pollutant shall not exceed 0.1 lb/hr and 0.44 ton/yr. Compliance with these emission limits have been demonstrated by the information submitted by the Permittee in the application for this permit.
4. This permit is issued based on negligible emissions of hydrochloric acid (HCl) from the HCl storage tank controlled by a scrubber. For this reason, emissions shall not exceed nominal rates of 0.1 lb/hr and 0.44 ton/yr. Compliance with these emission limits have been demonstrated by the information submitted by the Permittee in the application for this permit.
5. Emissions from truck loading station shall not exceed 9.0 tons/year VOM.

Emissions shall be determined from total throughput and the following equation from AP-42, Section 5.2 (1/95): Emissions (lb/1,000 gal) = 12.46 SPM/T, where S is the saturation factor = 0.5 for submerged loading; P is the true vapor pressure of all materials = 0.35 psia average of all materials, M is the molecular weight = 100 lb/lb-moles average of all materials and T is the average temperature in degrees Rankine = 530 R. Compliance with annual limits shall be determined by adding emissions from the present month to the emissions of the eleven preceding months.

6. Emissions and operation of the 2 boilers and all natural gas combustion equipment shall not exceed the following:

Natural Gas Usage		E M I S S I O N S					
<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	NO _x		CO		VOM	
<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>
10	100	0.5	5	0.4	4.2	0.03	0.3

These limits are based on and emissions from these boilers shall be determined by standard emission factors from AP-42, Table 1.4-1 (2/98) and Table 1.4-2 (3/98) for natural gas combustion in boilers less than 100 million Btu/hr. Compliance with annual limits shall be determined by adding emissions from the present month to the emissions of the eleven preceding months.

7. At all times the Permittee shall, to the extent practicable, maintain and operate the equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
8. 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 nuisance.

9. This permit is issued based on no required recordkeeping for the 8 mixing vessels or the HCl storage tank.
10. The Permittee shall maintain monthly records of the following items:
 - a. Natural gas usage (mmscf/month and mmscf/year);
 - b. Throughput of the truck loading station (gallons/month and gallons/year);
 - c. Throughput of material stored in each of the 21 storage tanks (gallons/month and gallons/year); and
 - d. VOM and HAP emission calculations (tons/month and tons/year) from the sources covered by this permit. Annual emissions shall be determined by adding emissions from the present month to the emissions of the eleven preceding months.
11. 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.
12. 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.
13. 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.
14. 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
9511 West Harrison
Des Plaines, Illinois 60016

15. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: VOM and HAP emissions (tons/year).

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

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

DES:RBS:psj

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

Attachment A - Emission Summary for Informational Purposes

This attachment provides a summary of the maximum emissions from the water treatment products manufacturing plant 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. This is handling over 5 million gallons of raw materials annually. The resulting maximum emissions are well below the levels, e.g., 25 tons per year of VOM, 25 tons per year of combined hazardous air pollutants (HAPs) and 10 tons per year of each single HAP 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.

1. Emissions from the 21 liquid storage tanks shall not exceed 11.4 tons/year VOM.

VOM Emissions
(Tons/Year)

11.4

These limits are based on maximum throughput, an average vapor pressure of all materials being 0.35 psia, and TANKS 4.0. Compliance with annual limits shall be determined by adding emissions from the present month to the emissions of the eleven preceding months.

2. This permit is issued based on negligible emissions of volatile organic material (VOM) and particulate matter from all 8 mixing vessels with scrubber. For this reason, emissions of each pollutant shall not exceed 0.1 lb/hr and 0.44 ton/yr. Compliance with these emission limits have been demonstrated by the information submitted by the Permittee in the application for this permit.
3. This permit is issued based on negligible emissions of hydrochloric acid (HCl) from the HCl storage tank controlled by a scrubber. For this reason, emissions shall not exceed nominal rates of 0.1 lb/hour and 0.44 tons/year. Compliance with these emission limits have been demonstrated by the information submitted by the Permittee in the application for this permit.
4. Emissions and operation of the truck loading operation shall not exceed the following:

VOM Emissions
(Tons/Year)

9.0

Emissions shall be determined from total throughput and the following equation from AP-42, Section 5.2: Emissions (lb/1,000 gal) = 12.46 SPM/T, where S is the saturation factor = 0.5 for submerged loading;

P is the true vapor pressure of all materials = 0.35 psia average of all materials, M is the molecular weight = 100 lb/lb-moles average of all materials and T is the average temperature in degrees Rankine = 530 R. Compliance with annual limits shall be determined by adding emissions from the present month to the emissions of the eleven preceding months.

5. Emissions and operation of the 2 boilers and all natural gas combustion equipment shall not exceed the following:

Natural Gas Usage		E M I S S I O N S					
		NO _x		CO		VOM	
<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>
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These limits are based on and emissions from these boilers shall be determined by standard emission factors from AP-42, Table 1.4-1 (2/98) and Table 1.4-2 (3/98) for natural gas combustion in boilers less than 100 million Btu/hr. Compliance with annual limits shall be determined by adding emissions from the present month to the emissions of the eleven preceding months.

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.

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