

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NSPS SOURCE - RENEWAL

PERMITTEE

Danisco America Inc.
Attn: Roger Luchies
Three Mile Road and Route 84
Thompson, Illinois 61285

<u>Application No.:</u> 81010054	<u>I.D. No.:</u> 015813AAA
<u>Applicant's Designation:</u>	<u>Date Received:</u> October 16, 2002
<u>Subject:</u> Sweeteners Manufacturing Plant	
<u>Date Issued:</u> March 11, 2003	<u>Expiration Date:</u> March 11, 2008
<u>Location:</u> 10994 Three Mile Road, Thompson	

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of eleven sweetener process tanks, three dryers, one mill, four screens, pneumatic transfer system, four dumping stations and five packaging systems, all of the above controlled by thirteen baghouses, two natural gas-fired boilers (with propane back-up), two hydrochloric acid and one sulfuric acid storage tanks, ten ion exchange resin regeneration tanks (one for hydrochloric acid and nine for sulfuric acid), two hydrochloric acid sweetener pH adjustment tanks and wastewater treatment plant 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 per year for nitrogen oxide (NO_x)). 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. This Boiler #2 is subject to a New Source Performance Standard (NSPS) for small Industrial, Commercial, and Industrial Steam Generating Units, 40 CFR 60, Subparts A and Dc. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
 - b. At all times, the Permittee shall maintain and operate the boiler, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, as required by the NSPS, 40 CFR 60.11(d).

- c. The Permittee shall fulfill applicable notification and recordkeeping requirement of the NSPS, 40 CFR 60.7 and 60.48c.

- 3. Emissions and operation of the two boilers combined shall not exceed the following limits:

- a. Natural Gas Usage: 150 mmscf/mo, 1,200 mmscf/yr

<u>Pollutant</u>	<u>Emission Factor (lb/mmscf)</u>	<u>Emissions</u>	
		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Nitrogen Oxides (NO _x)	100	7.5	60.0
Carbon Monoxide (CO)	84	6.3	50.4
Particulate Matter (PM)	7.6	0.6	4.6
Volatile Organic Materials (VOM)	5.5	0.4	3.3

- b. Propane Usage: 500,000 gal/mo, 4,000,000 gal/yr

<u>Pollutant</u>	<u>Emission Factor (Lb/10³ gal)</u>	<u>Emissions</u>	
		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Nitrogen Oxides (NO _x)	19	4.8	38.0
Carbon Monoxide (CO)	3.2	0.8	6.4
Particulate Matter (PM)	0.6	0.2	1.2
Volatile Organic Materials (VOM)	0.5	0.1	1.0

These limits are based on the maximum boilers operations and standard emission factors given by AP-42. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

- 4. This permit is issued based on negligible emissions of volatile organic materials from sweetener process tanks. For this purpose emissions from each emission source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
- 5. This permit is issued based on negligible emissions of particulate matter from a mill, the dryers, screens, pneumatic transfer and packaging systems, dumping stations and wastewater treatment plant. For this purpose emissions from each emission source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
- 6. This permit is issued based on negligible emission of hydrogen chloride from the hydrogen chloride storage tanks, pH adjustment and resin regeneration tanks. For this purpose, emission shall not exceed emission rates of 0.1 lb/hour and 0.44 ton/year. These limits are based on the maximum hydrochloric acid usage 75,000 gal/yr (35% concentration) and process acid concentration not exceeding 5%.
- 7. This permit is issued based on negligible emission of sulfuric acid and/or sulfur trioxide from the sulfuric acid storage tanks and resin regeneration tanks. For this purpose, emissions from all such sources shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year. These limits are based on the maximum sulfuric acid usage 135,000 gal/yr (95% concentration).

8. The Permittee shall maintain monthly records of the following items:
 - a. Natural gas and propane usage (mmscf/mo, mmscf/year and gal/mo, gal/yr);
 - b. Hydrochloric acid usage (gal/mo, gal/yr); and
 - c. Sulfuric acid usage (gal/mo, gal/yr).
9. 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 and 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 request for records during the course of a source inspection.
10. 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.
11. 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 regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

12. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: total fuel consumption. If there have been no exceedances during the prior calendar year the Annual Emissions Report shall include a statement of that effect.

Page 4

It should be noted that tanks storing sweeteners are exempt from state permit requirements pursuant to 35 Ill. Adm. Code 201.146 (n)(2).

If you have any questions on this permit, please call Valeriy Brodsky at 217/782-2113.

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

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cc: Illinois EPA, FOS Region 2
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emissions from natural gas fired steam boiler plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Agency used the annual operating scenario which results in maximum emissions from such a plant. This is combustion of 1,200 mmscf of natural gas and 4,000,000 gallons of propane in the boilers. The resulting maximum emissions are well 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 material is handled, and control measures are more effective than required in this permit.

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

- a. Natural Gas Usage: 150 mmscf/mo, 1,200 mmscf/yr

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Particulate Matter (PM)	0.6	0.2	1.2
Volatile Organic Materials (VOM)	0.5	0.1	1.0

2. This permit is issued based on negligible emissions of volatile organic materials from sweetener process tanks. For this purpose emissions from each emission source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
3. This permit is issued based on negligible emissions of particulate matter a mill, the dryers, screens, pneumatic transfer and packaging systems, dumping stations and wastewater treatment plant. For this purpose emissions from each emission source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
4. This permit is issued based on negligible emission of hydrogen chloride from the hydrogen chloride storage tanks, pH adjustment and resin regeneration tanks. For this purpose, emission shall not exceed emission rates of 0.1 lb/hour and 0.44 ton/year. These limits are based on the maximum hydrochloric acid usage 75,000 gal/yr (35% concentration) and process acid concentration not exceeding 5%.

5. This permit is issued based on negligible emission of sulfuric acid and/or sulfur trioxide from the sulfuric acid storage tanks and resin regeneration tanks. For this purpose, emission shall not exceed emission rates of 0.1 lb/hour and 0.44 ton/year. These limits are based on the maximum sulfuric acid usage 135,000 gal/yr (95% concentration).

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