

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT  
NSPS SOURCE - REVISED

PERMITTEE

M & M Mars, Inc.  
Attn: Claudia Marrow  
2019 North Oak Park Avenue  
Chicago, Illinois 60707

Application No.: 96100080

I.D. No.: 031600CEZ

Applicant's Designation:

Date Received: January 11, 2002

Subject: Candy Manufacturing

Date Issued:

Expiration Date:

Location: 2019 North Oak Park Avenue, Chicago, 60707

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of cogeneration unit (46.93 mmBtu/hr), HRSG (63 mmBtu/hr), standby boiler (40.95 mmBtu/hr), RECON dry material handling system with dust collection consisting of sugar handling, lactose handling, and dry milk handling, K-type chocolate manufacturing with dust collection consisting of milk power handling and chocolate crumb handling, egg system with dust collection consisting of soy hopper and egg albumin dump, 3 tote lines with dust collection, sugar silo with dust collection, milk power silo with dust collection, 3 sugar bins with dust collection, candy polishing operation, chocolate silo with dust collection, bulk milk powder bag dump with dust collection, crumb mills with dust collection, ink jet printers, and video jet printers 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., volatile organic material (VOM) to less than 25 ton/yr and nitrogen oxides (NO<sub>x</sub>) to less than 100 tons/yr). 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. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, 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 Permit (CAAPP), and Section 112(G) of the Clean Air Act.

- 3a. This cogeneration turbine is subject to a New Source Performance Standard (NSPS) for stationary gas turbines, 40 CFR 60, Subpart A and GG. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. The nitrogen dioxide from the cogeneration turbine shall not exceed 200 ppm when firing natural gas, pursuant to the 40 CFR 60.332(a)(2).
- c. The sulfur dioxide from the cogeneration turbine shall not exceed 150 ppm, pursuant to 40 CFR 60.333(a).
- d. At all times, the Permittee shall also, to the extent practicable, maintain and operate the gas turbine, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
- 4a. The HRSG and stand-by boiler are subject to a New Source Performance Standard (NSPS) for Small Industrial - Commercial - Institutional 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. Sulfur dioxide emissions from the HRSG and stand-by boiler shall not exceed the applicable limit, pursuant to the NSPS, 40 CFR 60.42c.
- c. Opacity from the HRSG and stand-by boiler shall not exceed 20% opacity (6-minute average) during normal operation except for one 6-minute period per hour of not more than 27% opacity, pursuant to the NSPS, 40 CFR 60.43c.
- d. At all times, the Permittee shall maintain and operate the HRSG and stand-by 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).
- e. The Permittee shall fulfill applicable notification and recordkeeping requirements of the NSPS, 40 CFR 60.7.
- 5. Emissions and operation of dry material handling operations shall not exceed the following limits:

<u>Process</u>	<u>Maximum Process Weight Rate (Ton/Hr)</u>		<u>PM Emissions (Lb/Hr) (Ton/Yr)</u>	
2 Unloading to Sugar Receivers with Dust Collection (Each)	10		0.16	0.7
3 Loading to Sugar Bins with Dust Collection (Each)	10		0.12	0.53

Maximum Process Weight Rate                      PM Emissions

<u>Process</u>	<u>(Ton/Hr)</u>	<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
Loading to Sugar Silo with Dust Collection	20	0.27	1.2
Receiver Loading with Dust Collection (H-352)	2.6	0.24	1.04
Bulk Milk Power Dump with Dust Collection	3	0.13	0.59
Loading to Milk Powder Silo with Dust Collection	10	0.03	0.15
2 Chocolate Crumb Receivers with Dust Collection (Each)	2.5	0.25	1.09
Loading to Chocolate Crumb Silo with Dust Collection	5	0.54	2.37
2 Recon Sugar Transfers with 2 Dust Collectors (Each)	5	0.12	0.53
Recon Lactose Receiving with Dust Collection	1.25	0.12	0.53
Recon Dry Milk Receiving with Dust Collection	2.25	0.12	0.53
3 Tote Lines Mix Transfer with Dust Collection (Each)	3.96	0.07	0.32
Loading of Soy Hopper with Dust Collection	3	0.03	0.13
Egg Albumin Hand Dump with Dust Collection	3	0.03	0.13
Milk Truck Receiver Loading with Dust Collection	10	0.11	0.47
Milk Power Silo Loading with Dust Collection	10	0.03	0.15
Crumb Mill Receiver with Dust Collection (647-6)	4.4	0.37	1.61
Crumb Mill Silo Loading with Dust Collection	4.4	0.37	1.61

These limits are based on maximum material handling rates, 0.02 gr/scf exhaust loading rate, air exhaust rates, 8,760 hours of operation, and information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

6. Emissions and operation of cogeneration unit, HRSG and standby boiler shall not exceed the following limits:

<u>Equipment</u>	<u>Natural Gas Usage</u>		<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>		<u>Factor</u>	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>
Cogeneration Unit/HRSG	40	400	NO <sub>x</sub>	413	16,520	82.6
			CO	115	4,600	23
			TSP	14	560	2.8
			VOM	12.6	504	2.52
Standby Boiler	10	100	NO <sub>x</sub>	100	1,000	5
			CO	84	840	4.2
			TSP	7.6	76	0.38
			VOM	5.5	55	0.28

<u>Process</u>	<u>Fuel Oil Usage</u>		<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>		<u>Factor</u>	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>
Back Up Fuel Combustion	1,500	19,000	SO <sub>2</sub>	42.6	64	0.40
			NO <sub>x</sub>	97.7	147	0.93
			CO	6.72	10	0.06
			TSP	8.54	13	0.08

These limits are based on standard AP-42 emission factors, 0.3 percent sulfur content in the fuel oil, and information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

7. Emissions and operation of polishing operation and printing operations shall not exceed the following limits:

<u>Material</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Lb/Mo)</u>	<u>(Lb/Yr)</u>	<u>(Lb/Mo)</u>	<u>(Ton/Yr)</u>
Glazes	3,250	32,500	3,250	16.25
Printing Inks	670	6,700	670	3.35

These limits are based on the complete volatilization of the VOM content, material VOM usage = material usage x material VOM content, and information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

8. The Permittee shall not utilize distillate fuel oil (Grades No. 1 and 2) in the boiler with a sulfur content greater than the larger of the following two values pursuant to 35 Ill. Adm. Code 214:
  - a. 0.28 weight percent, or
  - b. The weight percent given by the formula: Maximum weight percent sulfur =  $(0.000015) \times (\text{Gross heating value of oil, Btu/lb})$ .
9. Operation in excess of the applicable emission standards during malfunction and breakdown of the cogeneration, HRSG and stand-by boiler is not allowed.
10. The Permittee shall operate, maintain, and repair all air pollution control equipment in a manner that assures that the emission limits set in this permit are met at all times. The actions taken by the Permittee to meet this requirement shall include at least the following:
  - i. Visual inspections of air pollution control equipment shall be conducted on a regular schedule. Detailed inspections of control equipment shall be made at least once per year.
  - ii. Prompt repairs shall be made upon identification of need either as a consequence of formal inspections or other observations.
  - iii. Records of inspection, maintenance and repair activities shall be kept in accordance with Condition 11.
  - iv. The control equipment must be in operation when process sources are in operation.
11. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
12. The Permittee shall maintain records of the vendor recommendations at the facility and be available for inspection and copying by the Illinois EPA.
13. In the event that the operation of this emission unit 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.

14. The Permittee shall maintain the following records:
  - a. Natural gas usage for the cogeneration unit/HRSG (mmscf/mo and mmscf/yr);
  - b. Natural gas usage for the standby boiler (mmscf/mo and mmscf/yr);
  - c. Fuel oil usage and percent weight sulfur content (gal/mo and gal/yr);
  - d. Amount and type of dry product received (ton/mo and ton/yr); and
  - e. Name, usage (lb/mo and lb/yr), VOM and HAP content (% wt. or lb/gal), and VOM and HAP emissions for the following materials:
    - i. Printing inks; and
    - ii. Glazes.
15. 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.
16. 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.
17. 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

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18. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:

- a. Natural gas usage; and
- b. VOM usage of inks and glazes.

Please note that this permit has been revised to incorporate Construction Permit #02010080.

If you have any questions on this, please call Eric Jones 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 3  
Illinois EPA, Compliance Section  
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from candy manufacturing facility 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 500 mmscf of natural gas combustion and limiting the VOM usage in the printers and polishing operations. The resulting maximum emissions are well below the levels, e.g., 100 tons/yr of nitrogen oxides (NO<sub>x</sub>) and 25 tons/yr of volatile organic material (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.

1. Emissions and operation of dry material handling operations shall not exceed the following limits:

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<u>Process</u>	<u>Maximum Process Weight Rate (Ton/Hr)</u>		<u>PM Emissions (Lb/Hr) (Ton/Yr)</u>	
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2. Emissions and operation of cogeneration unit, HRSG and standby boiler shall not exceed the following limits:

<u>Equipment</u>	<u>Natural Gas Usage (mmscf/Mo)(mmscf/Yr)</u>		<u>Pollutant</u>	<u>Emission Factor (Lb/mmscf) Emissions (Lb/Mo) (T/Yr)</u>		
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<u>Process</u>	<u>Fuel Oil Usage (Gal/Mo)(Gal/Yr)</u>		<u>Pollutant</u>	<u>Emission Factor (Lb/1,000 Gal) Emissions (Lb/Mo) (T/Yr)</u>		
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			NO <sub>x</sub>	97.7	147	0.93
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