Facility Name: MAAX, USA
City: Valdosta
County: Lowndes
AIRS #: 04-13-185-00023 Application #: TV- 9362

Date Application Received: October 23, 1996
Date Application Deemed Administratively Complete: April 28, 1997
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Permit No: 3088-185-0023-V-01-0

Program	Review Engineers	Review Managers
SSPP/ASU	Sam Edge	Terry Johnson
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Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Title V operating permit. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being proposed pursuant to: (1) Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to MAAX, USA and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the methods for determining compliance with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

I. Facility Description

The Facility Description may be presented in outline or narrative form. It must contain the information contained in each of the following subsections, preferably in a similar order.

A. Facility Identification

1. Facility Name: MAAX, USA

2. Parent/Holding Company Name: MAAX Incorporated

3. Previous and/or Other Name(s): The facility was permitted previously under the names Corl Corporation and GlasTec

4. Facility Location:
   1625 James P. Rodgers Road
   Valdosta, Georgia 31603
   Lowndes County

5. Attainment or Non-attainment Area Location:
   Lowndes County is in the Attainment Area for Ozone.

6. Class I Area Impacts:
   The facility is located within 100 km of the st. Marks Class I area.

B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current permits (including Part 71 permits), as amended, issued to the facility. Based on a comparative review of Item 19 in Section 1.10 of the Title V application and the "Permit" files on the facility found in the Air Branch office, comments are listed in Table 2 below.

Table 1: List of Current Permits, as Amended

Permit Number and/or Purpose of Issuance	Date of Issuance and Date of Amendments (if any)	Comments	
		Yes	No
3079-092-9366	July 2, 1986		✓
3079-092-9363	July 2, 1986	✓	

Table 2: Comments on Specific Permits

Permit Number	Comments
3079-092-9363	Our records indicate this permit was for the operation of the acrylics fixtures process line at this facility.

D. Process Description

1. SIC Code: 3088

2. Description of Product(s)

The facility manufactures both bathtubs, showers, acrylic bath fixtures, and whirlpool units. Resin and fiberglass are sprayed onto molds (for showers and bathtubs) or onto a formed acrylic sheet (for acrylic fixtures).

3. Overall Facility Process Description

There are 3 major process lines at the MAAX, USA facility in Valdosta, Georgia: the fiberglass shower and bathtub manufacturing line, the acrylic bath fixture line, and the whirlpool unit line. The emissions from the facility consist of VOC and HAP (Styrene) emitted from the fiberglass and acrylic lines.

A. **Fiberglass bathtub/shower line:**
A conveyor system moves bathtub and show molds through a series of spray booths. One of the spray booths is for Gel Coat application, the remaining booths apply the resin/filler material to the mold. After ambient curing (heat assisted only in cold weather conditions) the unit is removed from the mold and taken into a trim/finishing area, after which, it is ready for shipment.

B. **Acrylic Bath Fixtures Line:**
This line is very similar to the fiberglass process line, with the major difference being the use of a formed acrylic sheet that is part of the final unit, instead of a mold. Acrylic sheets are vacuum formed (no associated air emissions; see insignificant activities) into a desired shape (shower, tub, etc.). Next, the formed acrylic unit is sent through a series of spray booths, much as in the fiberglass process line. In the first spray booth, a barrier coat is applied to the acrylic unit in order to facilitate the bonding of the resin layer to the unit. After this, the resin material is added to the unit to give it strength and support. After curing, the units go through a trim/finishing area, much as in the fiberglass line, and are ready for shipment.

C. **Whirlpool Line:**
Certain models of bathtubs produced in one of the above process lines are fitted with pump and piping to make them whirlpool units. Emissions associated with the bathtub shell production have already been accounted in the other sections of the facility, and the only emissions originating in this process line consist of emissions from the glues used to fit and seal the piping on the units.

D. **Miscellaneous/Support Equipment:**
The facility also has various support areas: a mixing department, with negligible breathing losses from the tanks in this area (two 50,000 gallon resin storage tanks, one 40,000 gallon resin storage tank, two day/ready tanks, and a single mixing tank). A 250,000 BTU oven is used to assist curing in cold weather conditions, and is listed under insignificant activities. Finally, an R&D area uses spray and hand layup operations to form the molds used at the facility.

4. Overall Process Flow Diagram: See Title V Application No. 9362.

E. Regulatory Status

1. PSD/NSR:

The facility has potential emissions above 250 tons per year of VOCs. However, since the facility's actual emissions are below the cutoff, this Title V permit will include a facility-wide cap of 249 tons per 12 month period of VOC emissions in order to make this facility a minor source under PSD.

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the Pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	✓			✓
PM_{10}	✓			✓
SO_2	✓			✓
VOC	✓	✓		
NO_x	✓			✓
CO	✓			✓
TRS				
H_2S				
Individual HAP	✓	✓		
Total HAPs	✓	✓		

3. MACT Standards

This facility is a major source of hazardous air pollutants (HAP:Styrene). However, there are no current MACT standards which are applicable. Any MACT standards which the facility would be subject to are pending promulgation.

4. Program Applicability

Indicate if the following programs are applicable to the facility (with a "yes" or "no").

Program Code	Applicable (Yes/No)
Program Code 6 - PSD	No
Program Code 8 - Part 61 NESHAP	No
Program Code 9 - NSPS	No
Program Code M - Part 63 NESHAP	No

Program Code	Applicable (Yes/No)
Program Code V - Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

1. The facility has potential emissions above 250 tons per year; however, the actual emissions are below this threshold. Therefore, a limit of 249 tons of VOC emissions per 12 consecutive month period has been incorporated into this Title V permit, in order for the source to be classified as a minor source under PSD.

B. Applicable Rules and Regulations

None Applicable.

C. Compliance Status:

The facility has not indicated any noncompliance issues in Section 11.10 of their Title V application.

D. Operational Flexibility:

The facility has not requested any operational flexibility in their Title V application. There are no new rules, regulations or work practices that will be applicable to this source for the purposes of operational flexibility.

E. Permit Conditions

Conditions for the Title V permit Part 2.0 include the following:

1. Condition 2.1.1 limits the facility's VOC emissions to no more than 249 tpy during any twelve consecutive months.

III. Regulated Equipment Requirements

A. Brief Process Description

The facility manufactures fiberglass and acrylic bath fixtures (bathtubs, showers and whirlpools). Molds for fiberglass units are created in a research and development area at the facility (Source Code R100). These molds are then sprayed with a Gel Coat layer in the Gel Coat Spray booth (Source Code G100) and then supporting fiber and resin are applied in the spray booth/chop stations (Source Codes G200, G300, and G400). In a similar process, acrylic sheets are vacuum formed into bathtub and shower shells. A barrier coat is applied to the acrylic shells in a barrier coat spray booth (Source Code A100); this barrier coat helps the acrylic shell and the fiberglass layers adhere. After the barrier coat is applied, fiber and resin are applied in a spray booth (Source Code A200). After curing, units from both the fiberglass and acrylic are trimmed, polished, and have ports installed in a finishing area (no associated air emissions). Some of the finished bathtubs from the finishing area are fitted with piping and pumps to make whirlpool units (Source Code W100).

B. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements / Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
G100	Gel Coat Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.1.1, 3.4.1, 3.4.2, 3.5.1, 6.2.1	GP10	Booth Overspray Paper Filter
G200	Chop Station #1 Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.1.1, 3.4.1, 3.4.2, 3.5.1, 6.2.1	GP20	Booth Overspray Paper Filter
G300	Chop Station #2 Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.1.1, 3.4.1, 3.4.2, 3.5.1, 6.2.1	GP30	Booth Overspray Paper Filter
G400	Chop Station #4 Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.1.1, 3.4.1, 3.4.2, 3.5.1, 6.2.1	GP40	Booth Overspray Paper Filter
A100	Barrier Coat Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.1.1, 3.4.1, 3.4.2, 3.5.1, 6.2.1	AP10	Booth Overspray Paper Filter
A200	Acrylic Process Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.1.1, 3.4.1, 3.4.2, 3.5.1, 6.2.1	AP20	Booth Overspray Paper Filter
R100	Research and Development Area	391-3-1-.02(6)(b)1.	2.1.1, 6.2.1	None	None
W100	Whirlpool Assembly Area	391-3-1-.02(6)(b)1.	2.1.1, 6.2.1	None	None

* Generally Applicable Requirements contained in this permit may apply also to emission units listed above.

C. Equipment & Rule Applicability

Rules and Regulations Assessment - The facility is subject to the following Georgia State Rules:

391-3-1-.02(2)(b)	Visible Emissions
391-3-1-.02(2)(e)	Particulate Emissions from Manufacturing Processes
391-3-1-.02(3)	Sampling

Emission and Operating Standards:

391-3-1-.02(2)(b) Visible Emissions: Limits opacity of an air contaminant source (Emission Unit ID Nos. G100, G200, G300, G400, A100 and A200) to less than 40 %.

391-3-1-.02(2)(e) Particulate Emissions from Manufacturing Processes: Limits emissions of particulate matter from surface coating process equipment (Emission Unit ID Nos. G100, G200, G300, G400, A100 and A200) to pounds per hour based on the formula $E = 4.1*P^{0.67}$, E = emission rate in pounds per hour, P = process input weight rate in tons per hour .

D. Compliance Status

The facility has not indicated any noncompliance issues in Section 11.10 of their Title V application.

E. Operational Flexibility

The facility has not requested any operational flexibility in their Title V application. There are no new rules, regulations or work practices that will be applicable to this source for the purposes of operational flexibility.

F. Permit Conditions

1. Condition 3.4.1 subjects the surface coating lines (Emission Unit ID Nos. G100, G200, G300, G400, A100 and A200) to State Rule (b). This limits the opacity on emissions from these sources to less than 40 percent.

2. Condition 3.4.2 subjects the surface coating lines (Emission Unit ID Nos. G100, G200, G300, G400, A100 and A200) to State Rule (e). This limits the PM emissions from these emissions units, such that the allowable PM emissions are derived from the formula $E = 4.1*P^{0.67}$, where E = allowable emission rate in pounds per hour and P = process input weight rate in tons per hour .

3. Condition 3.5.1 requires that the filters for the spray booths (Emission Unit ID Nos. G100, G200, G300, G400, A100 and A200) be changed once per day of operation.

IV. **Testing Requirements** (with Associated Record Keeping and Reporting)

A. General Testing Requirements

Conditions are included which specify that a performance test may be required to determine compliance with the emission limits in Part 3.0 and that list the test methods to be used to determine compliance. A condition to require notification of any test and for the submission of a test plan is included.

B. Specific Testing Requirements

None Applicable.

V. Monitoring Requirements (with Associated Record Keeping and Reporting)

A. General Monitoring Requirements

The permit requires that any monitoring system installed be in continuous operation except when under repair, and that maintenance or repair be conducted in an expedient manner.

B. Specific Monitoring Requirements

The facility includes six spray booths (Emission Unit ID Nos. G100, G200, G300, G400, A100, and A200) which are controlled by paper overspray filters. The spray booths are subject to Georgia Rules (b) and (e). Condition 5.2.1. requires the Permittee to perform filter changes for these sources once per day of operation.

A list of excess emissions, exceedances, excursions, and other information to be included in the Permittee's semiannual report is included in Condition 5.2.2.

C. Record Keeping and Reporting Requirements

Records, consisting of identification of any deviations, including excess emissions, exceedances, and excursions from applicable monitoring triggers, the cause of such occurrence, and the corrective action taken are required to be kept by the Permittee and reporting is required on a semiannual basis. Other sampling, measurement, monitoring, and performance testing records to be kept available for inspection are specified.

VI. Other Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from applicable requirements.

B. Specific Record Keeping and Reporting Requirements

The facility is subject to a 249 tons per twelve consecutive month period volatile organic compound limitation in order to avoid PSD review. Condition 6.2.1 requires the facility to maintain monthly usage records of all materials containing volatile organic compounds. Condition 6.2.2 requires the Permittee to calculate monthly VOC emissions and to notify the Division if the total emissions exceed 20.75 tons during any calendar month. Condition 6.2.3 requires the Permittee to compile and report a twelve month rolling total of VOC emissions for each month in the reporting period and to notify the Division if the total emissions exceed 249 tons during any calendar month.

VII. Specific Requirements

A. Operational Flexibility

The facility has not indicated a need for operational flexibility.

B. Alternative Requirements

There are no alternative requirements indicated.

C. Insignificant Activities

The following is a list of the facility's insignificant activities as detailed in §4.10 of the Title V permit application.

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Mobile Sources	1. Cleaning and sweeping of streets and paved surfaces	
Combustion Equipment	1. Fire fighting and similar safety equipment used to train fire fighters or other emergency personnel.	
	2. Small incinerators that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act and are not considered a "designated facility" as specified in 40 CFR 60.32e of the Federal emissions guidelines for Hospital/Medical/Infectious Waste Incinerators, that are operating as follows:: I) less than 8 million BTU/hr heat input, firing types 0, 1, 2, and/or 3 waste.	
	ii) less than 8 million BTU/hr heat input with no more than 10% pathological (type 4) waste by weight combined with types 0, 1, 2, and/or 3 waste.	
	iii) less than 4 million BTU/hr heat input firing type 4 waste. (Refer to 391-3-1-.03(10)(g)2.(ii) for descriptions of waste types)	
	3. Open burning in compliance with Georgia Rule 391-3-1-.02 (5).	
	4. Stationary engines burning: I) Natural gas, LPG, gasoline, dual fuel, or diesel fuel which are used exclusively as emergency generators;	
	ii) Natural gas, LPG, and/or diesel fueled generators used for emergency, peaking, and/or standby power generation, where the combined peaking and standby power generation do not exceed 200 hours per year.	
	iii) Natural gas, LPG, and/or diesel fuel used for other purposes, provided that the output of each engine does not exceed 400 horsepower and that no individual engine operates for more than 2,000 hours per year.	
	iv) Gasoline used for other purposes, provided that the output of each engine does not exceed 100 horsepower and that no individual engine operates for more than 500 hours per year.	
Trade Operations	1. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities whose emissions of hazardous air pollutants (HAPs) fall below 1,000 pounds per year.	
Maintenance, Cleaning, and Housekeeping	1. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system (or collector) serving them exclusively.	
	2. Portable blast-cleaning equipment.	
	3. Non-Perchloroethylene Dry-cleaning equipment with a capacity of 100 pounds per hour or less of clothes.	
	4. Cold cleaners having an air/vapor interface of not more than 10 square feet and that do not use a halogenated solvent.	
	5. Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning.	
	6. Devices used exclusively for cleaning metal parts or surfaces by burning off residual amounts of paint, varnish, or other foreign material, provided that such devices are equipped with afterburners.	
	7. Cleaning operations: Alkaline phosphate cleaners and associated cleaners and burners.	
Laboratories and Testing	1. Laboratory fume hoods and vents associated with bench-scale laboratory equipment used for physical or chemical analysis.	

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
	2. Research and development facilities, quality control testing facilities and/or small pilot projects, where combined daily emissions from all operations are not individually major or are support facilities not making significant contributions to the product of a collocated major manufacturing facility.	
Pollution Control	1. Sanitary waste water collection and treatment systems, except incineration equipment or equipment subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act..	
	2. On site soil or groundwater decontamination units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	3. Bioremediation operations units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	4. Landfills that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
Industrial Operations	1. Concrete block and brick plants, concrete products plants, and ready mix concrete plants producing less than 125,000 tons per year.	
	2. Any of the following processes or process equipment which are electrically heated or which fire natural gas, LPG or distillate fuel oil at a maximum total heat input rate of not more than 5 million BTU's per hour: i) Furnaces for heat treating glass or metals, the use of which do not involve molten materials or oil-coated parts.	
	ii) Porcelain enameling furnaces or porcelain enameling drying ovens.	
	iii) Kilns for firing ceramic ware.	
	iv) Crucible furnaces, pot furnaces, or induction melting and holding furnaces with a capacity of 1,000 pounds or less each, in which sweating or distilling is not conducted and in which fluxing is not conducted utilizing free chlorine, chloride or fluoride derivatives, or ammonium compounds.	
	v) Bakery ovens and confection cookers.	
	3. Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, or polishing; ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood, also including roll grinding and ground wood pulping stone sharpening, provided that: I) Activity is performed indoors; & ii) No significant fugitive particulate emissions enter the environment; & iii) No visible emissions enter the outdoor atmosphere.	3
	4. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy (e.g., blueprint activity, photographic developing and microfiche).	
	5. Grain, food, or mineral extrusion processes	
	6. Equipment used exclusively for sintering of glass or metals, but not including equipment used for sintering metal-bearing ores, metal scale, clay, fly ash, or metal compounds.	
	7. Equipment for the mining and screening of uncrushed native sand and gravel.	
	8. Ozonization process or process equipment.	
	9. Electrostatic powder coating booths with an appropriately designed and operated particulate control system.	
	10. Activities involving the application of hot melt adhesives where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
Industrial Operations (continued)	11. Equipment used exclusively for the mixing and blending water-based adhesives and coatings at ambient temperatures.	
	12. Equipment used for compression, molding and injection of plastics where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	6
	13. Ultraviolet curing processes where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
Storage Tanks and Equipment	1. All petroleum liquid storage tanks storing a liquid with a true vapor pressure of equal to or less than 0.50 psia as stored.	

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
	2. All petroleum liquid storage tanks with a capacity of less than 40,000 gallons storing a liquid with a true vapor pressure of equal to or less than 2.0 psia as stored that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	3. All petroleum liquid storage tanks with a capacity of less than 10,000 gallons storing a petroleum liquid.	
	4. All pressurized vessels designed to operate in excess of 30 psig storing petroleum fuels that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	5. Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at vehicle dispensing facilities that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	6. Portable drums, barrels, and totes provided that the volume of each container does not exceed 550 gallons.	50
	7. All chemical storage tanks used to store a chemical with a true vapor pressure of less than or equal to 10 millimeters of mercury (0.19 psia).	

The following table includes groups of fuel burning equipment subject only to Georgia Rules 391-3-1-.02 (2) (b) & (d).Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Fuel Burning Equipment	Number of Units
Fuel burning equipment with a rated heat input capacity of less than 10 million BTU/hr burning only natural gas and/or LPG.	
Fuel burning equipment with a rated heat input capacity of less than 5 million BTU/hr, burning only distillate fuel oil, natural gas and/or LPG.	
Any fuel burning equipment with a rated heat input capacity of 1 million BTU/hr or less.	1

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
50,000 gallon Resin Storage Tanks	2
40,000 gallon Resin Storage Tanks	1
Day Tanks	2
Resin Mixing Tank	1

D. Temporary Sources

There are no temporary sources indicated.

E. Short-Term Activities

The facility has not indicated any short term activities.

F. Compliance Schedule/Progress Reports

Not Applicable

G. Emissions Trading

Not Applicable

H. Acid Rain Requirements

Not Applicable

I. Prevention of Accidental Releases

The facility is not subject to the Accidental Release Prevention Program.

J. Stratospheric Ozone Protection Requirements

The facility has listed non-applicability according to Section 3.11 of their Title V application.

K. Pollution Prevention

The facility has not indicated any pollution prevention controls.

L. Specific Conditions

All conditions have been covered elsewhere in the review.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Closing Block: We have reviewed and recommend issuance of draft Permit No. 3088-185-0023-V-01-0

Program	Review Engineers	Dates	Review Managers	Dates
SSPP/ASU				
SSCP/ASU				
ISMP				
TOXICS				

Stationary Source Permitting Program Manager Date