Part 70 Operating Permit Amendment

Permit Amendment No.: **3296-121-0021-V-02-4** **Effective Date:**

Facility Name: **Owens Corning Insulating Systems, LLC**

Facility Address: 7000 McLarin Road
Fairburn, Georgia 30213, Fulton County

Mailing Address: 7000 McLarin Road
Fairburn, Georgia 30213

Parent/Holding Company: Owens Corning

Facility AIRS Number: 04-13-121-00021

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction permit for:

> The change of the FG-3 manufacturing line from bonded to unbonded loosefill insulation manufacturing, resulting in an increase in production capacity, and changes to existing Condition No. 4.2.11.

This Permit Amendment shall also serve as a final amendment to the Part 70 Permit unless objected to by the U.S. EPA or withdrawn by the Division. The Division will issue a letter when this Operating Permit amendment is finalized.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit Amendment and Permit No. 3296-121-0021-V-02-0. Unless modified or revoked, this Permit Amendment expires upon issuance of the next Part 70 Permit for this source.

This Permit Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Applications Nos. 20316, 20622, 20643 dated March 10, 2011, August 16, 2011, and August 30, 2011, respectively; any other applications upon which this Permit Amendment or Permit No. 3296-121-0021-V-02-0 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Permit Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **22** pages.

Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION

1.3 Process Description of Modification

The main purposes of proposed modification are the replacement of the FG-3 bonded loosefill insulation with a new unbonded loosefill (ULF) line and to have a higher molten glass pull rate across the new manufacturing line. The proposed project will affect several existing pieces of equipment including the following:

◊ Batch House
◊ Tank Farm and Binder Room
◊ FG-3 Furnace (FG31)
◊ FG-3 Riser/Channel (FG32)
◊ FG-3 Forehearth (FG33)
◊ FG-3 Forming Section (FG34)
◊ FG-3 Curing Section (FG35)
◊ FG-3 Cooling Section (FG36)
◊ FG-3 Cubers, Product Transport/Receiving, Packaging and Printing Systems.

Batch House

The proposed modification will increase the batch house production capacity due to the higher capacity new FG-3 furnace (FG31) to produce more molten glass for the downstream manufacturing line. This will be achieved by installing a higher capacity feed auger for the mixer. The potential to emit (PTE) particulate matter (PM) will increase in proportion to the increase in glass batch material processed.

Furnace

The proposed modification includes replacing the cold top FG-3 furnace (FG31) to accommodate the increase in the glass pull rate. Emissions from the furnace will increase proportionally to the increase in the glass pull rate.

Rise/Channel and Forehearth

The riser/channel (FG32) and forehearth (FG33) will be replaced and be a sealed and electrically heated system (G311) to accommodate the higher glass pull rate. PM emissions from the new riser/channel and forehearth would normally be proportionally higher than emissions from the current equipment; however, sealing the systems will reduce PM emissions and result in a net decrease of emissions. Combustion emissions from this equipment will be eliminated.

Forming and Curing Sections

The existing FG-3 forming section (FG34), drop out box system (G3S), and Hoodwall Wash Water System (HWWS) will be demolished, with the exception of the fiberizer platform, which will be expanded to accommodate six (6) fiberizers. Additionally, the curing oven (FG35) and incinerator (G3I) will be demolished. Exhaust from the drop out box system is currently combined with exhaust from the curing section incinerator in the respective mixing chamber before being emitted to the atmosphere. Removal of

the forming and curing sections will result in a decrease in PM, nitrogen oxides (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), and volatile organic compounds (VOC) from natural gas combustion, binder volatiles, and particulates consisting of a small amount of glass fibers, solidified binder droplets, and an aerosol of oil droplets from binder oil and oven chain lubricant.

Cooling Section

As part of the modification, the FG-3 cooling section (FG36) and associated scrubber (G3W) will be demolished. Removal of the cooling section will result in a decrease in associated PM and the small amount of VOC emitted as residual from the binder.

Tank Farm and Binder Room

The plant's binder room equipment will be modified slightly to remove the equipment that is now supplying the current FG-3 line with a phenolic binder. Tote storage and mixing/application systems for silane and dye will be modified as necessary to accommodate the increased usage and new tote storage and mixing/application systems for silicon lubricant; and antistatic compound and mineral oil application systems will be expanded as necessary and will include a new 9000 gallon mineral oil tank.

Upon completion of the FG-3 replacement project, the VOC emissions from the tank farm and binder room activities will decrease due to discontinuing the use of all binder ingredients, with the exception of silane, in FG-3. The existing FG-3 binder tanks will be abandoned and possibly demolished. The FG-3 wash water and cooling scrubber wash water systems (G3S) will be abandoned.

PART 2.0 REQUIREMENTS PERTAINING TO THE ENTIRE FACILITY

2.1 Facility Wide Emission Caps and Operating Limits

None applicable.

2.2 Facility Wide Federal Rule Standards

None applicable.

2.3 Facility Wide SIP Rule Standards

None applicable.

2.4 Facility Wide Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit

None applicable.

PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1. Emission Units (Modified)

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
FG11	FG-1 Furnace	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.7, 3.2.14, 3.2.15, 3.4.1, 3.4.3, 3.4.6, 5.2.2, 5.2.11, 6.1.7b.xi, 6.1.7c.i, 6.1.8, 6.2.1, 6.2.8		Batch Water Spray System
FG12	FG-1 Riser/Channel	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(yy)	3.2.14, 3.2.15, 3.4.1, 3.4.3, 3.4.6, 5.2.11, 6.1.8	N/A	N/A
FG13	Forehearth	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(yy)	3.2.14, 3.2.15, 3.4.1, 3.4.3, 3.4.6, 5.2.11, 6.1.8	N/A	N/A
FG14	FG-1 Forming Section	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(oo) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.4.2, 3.4.3, 3.4.6, 4.2.3, 4.2.17, 5.2.4, 5.2.11, 5.2.12, 5.2.13, 5.2.18, 6.1.7b.xv, 6.1.7c.ii, 6.1.8, 6.2.1, 6.2.13, 6.2.19, 6.2.20, 6.2.21, 6.2.22, 6.2.23, 6.2.24, 6.2.25	G1S	Proprietary Wet Scrubber
FG15	FG-1 Curing Oven	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(oo) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.4, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.4.2, 3.4.3, 3.4.6, 4.2.3, 4.2.7, 4.2.17, 5.2.1, 5.2.11, 5.2.12, 5.2.18, 5.2.21, 6.1.7b.iii, 6.1.8, 6.2.1, 6.2.6, 6.2.13, 6.2.23, 6.2.24, 6.2.25	G1I	Incinerator
FG16	FG-1 Cooling Section	GA Rule 391-3-1-.02(2)(oo) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.16, 3.4.2, 3.4.3, 3.5.1, 4.2.3, 4.2.17, 5.2.12, 5.2.16, 6.1.7c.vi, 6.2.1, 6.2.13, 6.2.23, 6.2.24, 6.2.25	G1A	Aerofilter
FG17	FG-1 Flexographic Printing	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(mm)	3.4.3, 3.4.7, 6.1.7b.ix-x, 6.1.8, 6.2.9, 6.2.10	N/A	N/A
FG18	FG-1 Asphalt Coating	40 CFR 63, Subpart A 40 CFR 63, Subpart JJJJ GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.3.2, 3.3.4, 3.3.8, 3.4.2, 3.4.3, 4.2.14, 4.2.15, 6.1.7b.ix-x, 6.1.7b.xviii, 6.2.15, 6.2.16, 6.2.23, 6.2.24	N/A	N/A

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
FG21	FG-2 Furnace	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.8, 3.2.10, 3.2.14, 3.2.15, 3.3.10, 3.4.1, 3.4.3, 3.4.6, 4.2.16, 5.2.2, 5.2.11, 6.1.7b.xi, 6.1.7b.xiii, 6.1.7c.i, 6.1.8, 6.2.1, 6.2.8, 6.2.12, 6.2.23		Batch Water Spray System
FG22	FG-2 Riser/Channel	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.4.1, 3.4.3, 6.1.8	N/A	N/A
FG23	FG-2 Forehearth	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.4.1, 3.4.3, 6.1.8	N/A	N/A
FG24	FG-2 Forming Section	40 CFR 60, Subpart A 40 CFR 60, Subpart PPP GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(oo) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.9, 3.2.10, 3.2.11, 3.2.13, 3.2.14, 3.2.15, 3.2.16, 3.3.5, 3.3.9, 3.4.2, 3.4.3, 3.4.6, 4.2.3, 4.2.11, 4.2.12, 4.2.13, 4.2.17, 5.2.4, 5.2.11, 5.2.12, 5.2.14, 5.2.19, 6.1.7b.xii, 6.1.7b.xiv, 6.1.7b.xvi, 6.1.7c.v, 6.1.8, 6.2.1, 6.2.11, 6.2.13, 6.2.19, 6.2.20, 6.2.21, 6.2.22, 6.2.23, 6.2.24, 6.2.25	G2S	Proprietary Wet Scrubber
FG25	FG-2 Curing Oven	40 CFR 60, Subpart A 40 CFR 60, Subpart PPP GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(oo) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.4, 3.2.9, 3.2.10, 3.2.11, 3.2.13, 3.2.14, 3.2.15, 3.2.16, 3.3.5, 3.3.9, 3.4.2, 3.4.3, 3.4.6, 4.2.3, 4.2.7, 4.2.11, 4.2.12, 4.2.13, 4.2.17, 5.2.1, 5.2.11, 5.2.12, 5.2.19, 5.2.21, 6.1.7b.iii, 6.1.7b.xii, 6.1.7b.xiv, 6.1.8, 6.2.1, 6.2.6, 6.2.11, 6.2.13, 6.2.23, 6.2.24, 6.2.25	G2I	Incinerator
FG26	FG-2 Cooling Section	40 CFR 60, Subpart A 40 CFR 60, Subpart PPP GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(oo) GA Rule 391-3-1-.02(2)(tt)	3.2.9, 3.2.10, 3.2.12, 3.2.13, 3.2.16, 3.3.5, 3.3.9, 3.4.2, 3.4.3, 3.5.1, 4.2.3, 4.2.11, 4.2.12, 4.2.13, 4.2.17, 5.2.12, 5.2.17, 6.1.7b.xii, 6.1.7b.xiv, 6.1.7c.iii-iv, 6.1.7c.vi, 6.2.1, 6.2.11, 6.2.13, 6.2.14, 6.2.23, 6.2.24, 6.2.25	G2A G2S	Aerofilter Smoke Stripper
FG27	FG-2 Flexographic Printing	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(mm)	3.4.3, 3.4.7, 6.1.7b.ix-x, 6.1.8, 6.2.9, 6.2.10	N/A	N/A
FG28	FG-2 Asphalt Coating	40 CFR 63, Subpart A 40 CFR 63, Subpart JJJJ GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.3.2, 3.3.4, 3.3.8, 3.4.2, 3.4.3, 4.2.14, 4.2.15, 6.1.7b.ix-x, 6.1.7b.xviii, 6.2.15, 6.2.16, 6.2.23, 6.2.24	N/A	N/A

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	**Description**	**Applicable Requirements/Standards**	**Corresponding Permit Conditions**	**ID No.**	**Description**
FG31	FG-3 Furnace	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.7, 3.2.14, 3.2.15, 3.2.17, 3.2.18, 3.2.19, 3.2.20, 3.4.1, 3.4.3, 3.4.6, 4.2.18, 5.2.2, 5.2.11, 6.1.7b.xi, 6.1.7c.i, 6.1.8, 6.2.1, 6.2.8, 6.2.23, 6.2.24		Batch Water Spray System
G312	Forming and Packaging	40 CFR 60, Subpart A 40 CFR 60, Subpart PPP GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(g) GA Rule 391-3-1-.02(2)(oo) GA Rule 391-3-1-.02(2)(tt) GA Rule 391-3-1-.02(2)(yy)	3.2.14, 3.2.15, 3.2.16, 3.2.17, 3.2.18, 3.2.19, 3.2.20, 3.3.5, 3.4.2, 3.4.3, 3.4.6, 3.5.2, 4.2.3, 4.2.6, 4.2.12, 4.2.13, 4.2.18, 5.2.4, 5.2.5, 5.2.6, 5.2.11, 5.2.12, 5.2.15, 6.1.7c.vii, 6.1.8, 6.2.1, 6.2.13, 6.2.23, 6.2.24	G3F1 G3F2	Rotary Filters (2)
	Plant Roads	GA Rule 391-3-1-.02(2)(n)	3.4.4, 3.4.5, 6.2.2	N/A	N/A

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

3.2 Equipment Emission Caps and Operating Limits

3.2.1 [Revoked]

3.2.2 [Revoked]

3.2.3 [Revoked]

3.2.4 The Permittee shall operate each incinerator (G1I or G2I) used to control volatile organic compounds (VOC) emissions from curing such that any 3-hour block average temperature in the firebox does not fall below the average established during the performance test. [391-3-1-.02(2)(tt)]

3.2.5 [Revoked]

3.2.6 [Revoked]

3.2.7 The Permittee shall not discharge or cause the discharge into the atmosphere from the FG11 and FG31 glass melting furnaces, nitrogen oxides (NO_x) emissions in excess of 13.5 and 7.4 pounds per ton of molten glass pulled, respectively. [391-3-1-.03(2)(c) and 391-3-1-.02(2)(yy)]

3.2.14 The Permittee shall maintain all burners used in the following emission units in a manner which minimizes NO_x emissions. This includes the use of low NO_x burner replacements when necessary for maintenance purposes:
[391-3-1-.03(2)(c) and 391-3-1-.02(2)(yy)]

Emission Units		Burner Recommendation
ID No.	Description	
FG11	FG-1 Furnace	Customized burners are recommended during startup, shutdown, and malfunction of any electric glass-melting furnace.
FG21	FG-2 Furnace	
FG31	FG-3 Furnace	
FG12	FG-1 Riser/Channel	Customized burners are recommended to maintain the temperature of the molten glass enroute to the forehearth.
FG13	FG-1 Forehearth	Customized burners are recommended to maintain the temperature of the molten glass prior to fiberizing of the molten glass.
FG14	FG-1 Forming	Customized burners are recommended to maintain glass temperature and aid the fiberizing of the molten glass.
FG24	FG-2 Forming	
G312	ULF Forming	
FG15	FG-1 Curing	Low NO_x burners are recommended to cure the binder.
FG25	FG-2 Curing	

3.2.17 The Permittee shall not discharge or cause the discharge into the atmosphere from the FG-3 furnace and the G312 manufacturing line VOCs in excess of 3.01 and 1.38 pounds per hour (13.2 and 6.03 tons per year), respectively, during any period of 12-consecutive months.
[391-3-1-.03(2)(c) and NSR Avoidance]

3.2.18 The Permittee shall not discharge or cause the discharge into the atmosphere from the FG-3 furnace and the G312 manufacturing line PM/PM_{10} in excess of 1.87 and 16.87 pounds per hour (8.21 and 73.9 tons per year), respectively, during any period of 12-consecutive months.
[391-3-1-.03(2)(c) and NSR Avoidance; Subpart PPP - 40 CFR 60.682 subsumed for G312]

3.2.19 The Permittee shall not discharge or cause the discharge into the atmosphere from the FG-3 furnace and the G312 manufacturing line NO_x in excess of 27.75 and 1.66 pounds per hour (122.25 and 7.25 tons per year), respectively, during any period of 12-consecutive months.
[391-3-1-.03(2)(c) and NSR Avoidance]

3.2.20 The Permittee shall not discharge or cause the discharge into the atmosphere from the FG-3 furnace and the G312 manufacturing line CO in excess of 1.78 and 18.47 pounds per hour (7.78 and 80.9 tons per year), respectively, during any period of 12-consecutive months.
[391-3-1-.03(2)(c) and NSR Avoidance]

3.2.21 The Permittee shall not discharge or cause the discharge into the atmosphere from the FG-1 mixing chamber PM/PM_{10} in excess of 34.86 pounds per hour (152.7 tons per year) during any period of 12-consecutive months.
[391-3-1-.03(2)(c) and NSR Avoidance]

3.3 Equipment Federal Rule Standards

3.3.1 [Revoked]

3.3.3 [Revoked]

3.3.5 The Permittee shall comply with Georgia Rule for Air Quality Control 391-3-1-.02(8)(b)5., which incorporates by reference 40 CFR Part 60 Subpart PPP, as these rules pertain to the FG-2 fiberglass manufacturing line (ID Nos. FG24, FG25, and FG26) and the G312 manufacturing line (ID No. G312). The Permittee shall operate the FG-2 fiberglass manufacturing line (ID Nos. FG24, FG25, and FG26) and the G312 manufacturing line (ID No. G312) in compliance with the provisions of the New Source Performance Standards (NSPS) found in 40 CFR Part 60 Subpart A - "General Provisions" and Subpart PPP - "Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants."
[40 CFR 60 Subpart A and Subpart PPP]

3.3.6 [Revoked]

3.3.7 [Revoked]

3.3.9 The Permittee shall not discharge or cause to be discharged into the atmosphere from the FG-2 fiberglass manufacturing line (ID Nos. FG24, FG25, and FG26) and the G312 manufacturing line (ID No. G312) any gases that contain particulate matter in excess of 11.0 pounds per ton of glass pulled from each line.
[Subpart PPP - 40 CFR 60.682]

3.4 Equipment SIP Rule Standards

3.4.2 The Permittee shall not discharge or cause the discharge into the atmosphere from the following emission units any gases which contain particulate matter in excess of 0.04 grain per dry standard cubic foot:
[Rule 391-3-1-.02(2)(oo)]

Emission Unit		
ID No.	Stack ID No.	Description
FG 14 and FG15	MC1	FG-1 Forming and Curing
FG16	AF1	FG-1 Cooling
FG18	A1N	FG-1 Asphalt Pit
FG24 and FG25	MC2	FG-2 Forming and Curing
FG26	AF2	FG-2 Cooling
FG28	A2S	FG-2 Asphalt Pit
G312	S312	ULF Forming

3.4.3 The Permittee shall not discharge into the atmosphere from any emission point of the following emission units any gases which exhibit opacity equal to or greater than 40 percent:
[391-3-1-.02(2)(b)]

Emission Units		
ID No.	Stack ID No.	Description
FG 11	F1N/F1S	FG-1 Furnace
FG12, FG13	FHRV	FG-1 Riser and Forehearth
FG14, FG15	MC1	FG-1 Forming and Curing
FG16	AF1	FG-1 Cooling
FG17		FG-1 Flexographic Printing
FG18	A1N	FG-1 Asphalt Pit
FG21	F2N/F2S	FG-2 Furnace
FG22, FG23	FHRV	FG-2 Riser and Forehearth
FG24, FG25	MC2	FG-2 Forming and Curing
FG26	AF2	FG-2 Cooling
FG27		FG-2 Flexographic Printing
FG28	A2S	FG-2 Asphalt Pit
FG31	F3	FG-3 Furnace
G312	S312	ULF Forming

3.4.6 The Permittee shall not burn fuel containing more than 2.5 percent sulfur, by weight, in the following emission units:
[391-3-1-.02(2)(g)]

Emission Units		
ID No.	Stack ID No.	Description
FG 11	F1N/F1S	FG-1 Furnace
FG12, FG13	FHRV	FG-1 Riser and Forehearth
FG14, FG15	MC1	FG-1 Forming and Curing
FG21	F2N/F2S	FG-2 Furnace
FG24, FG25	MC2	FG-2 Forming and Curing
FG31	F3	FG-3 Furnace
G312	S312	ULF Forming

3.5 Equipment Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit

3.5.2 The Permittee shall maintain an inventory of the Hydrex drum filter media and the emergency steel mesh filter such that an adequate supply of media and steel mesh filter is on hand to assure a continuous supply of media and steel mesh filter for the drum filter systems (G3F1 and G3F2).
[391-3-1-.03(2)(c)]

PART 4.0 REQUIREMENTS FOR TESTING

4.1 General Testing Requirements

4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 which pertain to the emission units listed in Section 3.1 are as follows:

g. Method 5E shall be used to determine the Particulate Matter concentration for units FG24/FG25 and FG26. The sampling time and sample volume shall be at least 120 minutes and 60 dscf. The probe and filter holder heating system may be set to provide a gas temperature no greater than 177 ± 14°C (350 ± 25°F).
[40 CFR 63.1385(a)(5)]

k. [Revoked]

l. [Revoked]

m. [Revoked]

n. [Revoked]

4.2 Specific Testing Requirements

4.2.1 [Revoked]

4.2.2 [Revoked]

4.2.3 During performance test(s) on FG-1, FG-2, or G312 manufacturing lines, the Permittee shall monitor and record the glass pull rate for the applicable rotary spin manufacturing line (FG-1, FG-2, or G312 respectively) every 15 minutes. The Permittee shall determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs.
[NSR Avoidance]

4.2.4 [Revoked]

4.2.5 [Revoked]

4.2.6 During the PM performance test(s) on Line G312 required by Condition 4.2.18, the Permittee shall continuously monitor and record the pressure drop across each Drum Filter System (ID Nos. G3F1 and G3F2) controlling Line G312, and establish the minimum and/or maximum value(s) that will be considered to determine compliance after the initial performance test.
[391-3-1-.02(6)(b)1(i)]

4.2.7 The Permittee shall, while conducting VOC performance testing for rotary spin manufacturing lines FG-1 or FG-2, continuously record the operating temperature of the applicable incinerator (G1I or G2I) and determine the average during each 1-hour test; the average operating temperature of the three 1-hour tests shall be used to determine compliance.
[391-3-1-.02(2)(tt)]

4.2.8 [Revoked]

4.2.9 [Revoked]

4.2.10 [Revoked]

4.2.11 The Permittee shall, within 180 days after permanently changing to starch-based binder formulation, conduct performance tests on the FG-2 manufacturing line to verify compliance with the PM emission limit in Condition No. 3.3.9. During the performance tests, the Permittee shall continuously monitor and record the liquid flow rate across Wet Scrubber G2S. Following the testing, the Permittee shall establish the minimum and/or the maximum values that will be used to indicate compliance. The results of the performance tests and the minimum and/or the maximum values also shall be submitted to the Division within 60 days of the completion of testing.
[Subpart PPP - 40 CFR 60.683(a), 40 CFR 60.684(a), and a Determination by EPA Region 4 dated Oct. 27, 2004]

4.2.12 Using the performance test results for the test of the FG-2 manufacturing line required by Condition 4.2.11, and the test of the G312 manufacturing line required by Condition 4.2.18, the Permittee shall compute the emission rate E of particulate matter for each test run using the following equation:
[Subpart PPP - 40 CFR 60.685(c)(1) and (3) and EPA Determination (Control No. 0600088)]

$$E = \frac{(C_t Q_{sd})}{(P_{avg} K)}$$

Where:

E = Emission rate of PM, lb/ton
C_t = Concentration of PM, gr/dscf
Q_{sd} = Volumetric flow rate of effluent gas, dscf/hr
P_{avg} = Average glass pull rate (P_i), ton/hr
K = Conversion factor, 7000 gr/lb

The average glass pull rate (Pavg) for the FG-2 forming line and the G312 forming line shall be the arithmetic average of three glass pull rate (P_i) determinations taken at intervals of at least 30 minutes during each run. The individual glass pull rates (P_i) shall be computed using the following equation or other method as approved by the Division:

$$P_i = (K')(L_s)(W_m)(M)\left(1.0 - (\frac{LOI}{100})\right)$$

Where:

P_i = Glass pull rate at interval "i", ton/hr
L_s = Line speed, ft/min
W_m = Trimmed mat width, ft
LOI = Loss on ignition, weight percent
K' = Conversion factor, 0.03 (min-ton)/(hr-lb)
M = Mat gram weight, lb/ft^2

4.2.13 The Permittee shall determine the line speed (L_s), trimmed mat width (W_m), and mat gram weight (M), for each performance test run, on Rotary Spin Fiberglass Manufacturing Line FG24, FG25, and FG26 and Manufacturing Line G312 from the process information or from direct measurements, for use in Condition 4.2.12.

In lieu of determining L_s, W_m, and M, the Permittee may use an alternative monitoring approach, such as flow cameras, to determine the glass pull rate, for use in Condition 4.2.12 as approved by the Division.
[Subpart PPP - 40 CFR 60.685(c)(3)(ii), EPA Determination (Control No. 0600088)]

4.2.17 Within 180 days after permanently changing to starch-based binder formulation, the Permittee shall conduct performance tests for the following pollutants emitted from the indicated equipment:

a. Particulate matter from the FG-1 and FG-2 manufacturing lines to obtain emission factors for NSR tracking purposes. During the performance tests, the Permittee shall continuously monitor and record the pressure drop across Wet Scrubber G1S and the liquid flow rate across Wet Scrubber G1S, and establish the minimum and/or the maximum values that will be used to indicate compliance after the tests.
[NSR Avoidance]

b. Volatile organic compound (VOC) emissions from the FG-1 and FG-2 manufacturing lines (Mixing chambers and Cooling sections) to demonstrate compliance with the corresponding VOC emissions limit in Condition 3.2.16. During the performance tests, the Permittee shall determine, for each manufacturing line, the average pound of VOC emitted per pound of binder solids applied during forming.
[NSR Avoidance]

c. Nitrogen oxides (NO_x) emissions from the FG-1 and FG-2 manufacturing lines (Mixing chambers and Cooling sections) to obtain an emission factor for NSR tracking purposes.

d. Carbon monoxide (CO) emissions from the FG-1 and FG-2 manufacturing lines (Mixing chambers and Cooling sections) to obtain an emission factor for NSR tracking purposes.
[NSR Avoidance]

e. Sulfur dioxide (SO_2) emissions from the FG-1 and FG-2 manufacturing lines (Mixing chambers and Cooling sections) to obtain an emission factor for NSR tracking purposes.
[NSR Avoidance]

4.2.18 Within 180 days after starting the unbonded loosefill line (G312), the Permittee shall conduct performance tests for PM_{10}, VOC, CO, and NO_x (If Permittee resumes use of niter, testing is required within 180 days of resumption of niter use) from the indicated equipment:

a. Particulate matter (PM_{10}) from the FG-3 furnace and the G312 manufacturing line to verify compliance with the corresponding PM_{10} emission limits and to obtain emission factors for NSR tracking purposes necessary to verify compliance with Condition 3.2.18. During the performance tests, the Permittee shall continuously monitor and record the pressure drop across each drum filter system (G3F1 and G3F2) and establish the minimum and/or the maximum values that will be used to indicate compliance after the tests.
[NSR Avoidance]

b. Volatile organic compound (VOC) emissions from the FG-3 furnace and the G312 manufacturing line to demonstrate compliance with the corresponding VOC emission limits and to obtain emission factors for NSR tracking purposes necessary to verify compliance with Condition 3.2.17.
[NSR Avoidance]

c. Nitrogen oxides (NO_x) emissions from the FG-3 furnace and the G312 manufacturing line to demonstrate compliance with the corresponding NO_x emission limits and to obtain emission factors for NSR tracking purposes necessary to verify compliance with Condition 3.2.19.
[NSR Avoidance]

d. Carbon monoxide (CO) emissions from the FG-3 furnace and the G312 manufacturing line to demonstrate compliance with the corresponding CO emission limits and to obtain emission factors for NSR tracking purposes necessary to verify compliance with Condition 3.2.20.
[NSR Avoidance]

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)

5.2 Specific Monitoring Requirements

5.2.1 The Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated parameters on the following equipment. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1, 391-3-1-.02(2)(tt), and 40 CFR 70.6(a)(3)(i)]

a. The temperature in the firebox of each incinerator (G1I and G2I).

5.2.2 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[NSR Avoidance, 391-3-1-.02(6)(b)1, and 40 CFR 70.6(a)(3)(i)]

a. Glass pull rate on Furnaces FG11, FG21, and FG31. Data shall be recorded hourly. After permanently changing to the starch-based binder formulation and the unbonded loosefill insulation, glass pull rate may be recorded daily.

b. Water flow rate to the batch wetting system on Furnaces FG11, FG21, and FG31. Data shall be recorded twice per operating shift. The time interval between recordings shall be at least six hours but no more than eight hours.

5.2.3 [Revoked]

5.2.4 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameter on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i); and Subpart PPP - 40 CFR 60.684(a), 60.683(c); and a Determination by EPA Region 4 dated Oct. 27, 2004 (G2S Only)]

a. The water pressure at the outlet of the pump that provides water used to wash the walls, floor, and ceiling of each dropout box (ID Nos. G1S and G2S). Data shall be recorded twice per operating shift. The data should be obtained within the first and last four hours of each operating shift.

b. The water flow rate into each dropout box (ID Nos. G1S and G2S). Data shall be recorded at least once every 4 hours. The monitoring devices must be recalibrated each quarter.

c. Pressure drop across each drum filter system (G3F1 and G3F2). Data shall be recorded once per week of operation.

5.2.5 The Permittee shall perform checks of the visible emissions from the S312 stack which vents the flue gas from the rotary drum filters (G3F1 and G3F2) controlling PM emissions from the G312 manufacturing line. Checks shall be daily, for each day of operation. The Permittee shall retain a record in a visible emissions (VE) log, suitable for inspection or submittal. The checks shall be conducted using the procedure below except when atmospheric conditions or sun positioning prevent any opportunity to perform the daily VE check. Any operational day when atmospheric conditions or sun position prevent a daily reading shall be reported as monitor downtime in the VE log.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. The person performing the determination shall stand at a distance of at least 15 feet which is sufficient to provide a clear view of the plume against a contrasting background with the sun in the 140° sector at his/her back. Consistent with this requirement, the determination shall be made from a position such that the line of vision is approximately perpendicular to the plume direction. Only one plume shall be in the line of sight at any time when multiple stacks are in proximity to each other.

b. For each source that exhibits visible emissions, the Permittee shall determine the cause of that visible emission and correct the problem in the most expedient manner possible. The Permittee shall note the cause of the visible emission, the pressure drop, any other pertinent operating parameters, and the corrective action taken in the log described above.

5.2.6 The Permittee shall develop and implement a Preventive Maintenance Program for each rotary drum filter (G3F1 and G3F2) to assure that the provisions of Condition 8.17.1 are met. The program shall be subject to review and modification by the Division and shall include the pressure drop range that indicates proper operation for each rotary drum filter. At a minimum, the following operation and maintenance checks shall be made on at least a weekly basis, and a record of the findings and corrective actions taken shall be recorded and kept in a maintenance log:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Record the pressure drop across each rotary drum filter and ensure that it is within the appropriate range.

b. Check that the vacuum nozzles are cleaning the dust from the entire surface of the media and that the dust collection system is operating properly.

5.2.7 [Revoked]

5.2.8 [Revoked]

5.2.9 [Revoked]

5.2.10 [Revoked]

5.2.12 The following pollutant specific emission unit(s) (PSEU) is/are subject to the Compliance Assurance Monitoring (CAM) Rule in 40 CFR 64.

Emission Unit	Pollutant
FG-1 Forming Section (FG14)	PM
FG-2 Forming Section (FG24)	PM
FG-3 Forming Section (G312)	PM
FG-1 Cooling Section (FG16)	PM
FG-2 Cooling Section (FG26)	PM
FG-1 Forming and Curing Sections (FG14 and FG15))	VOC
FG-2 Forming and Curing Sections (FG24 and FG25)	VOC

Permit conditions in this permit for the PSEU(s) listed above with regulatory citation 40 CFR 70.6(a)(3)(i) are included for the purpose of complying with 40 CFR 64. In addition, the Permittee shall meet the requirements, as applicable, of 40 CFR 64.7, 64.8, and 64.9.
[40 CFR 64]

5.2.15 The Permittee shall comply with the performance criteria listed in the table below for the PM_{10} emissions from the G312 manufacturing line.
[40 CFR 64.6(c)(1)(iii)]

Performance Criteria [64.4(a)(3)]	**Indicator No. 1 Visible Emissions**	**Indicator No. 2 Pressure drop**
A. Data Representativeness [64.3(b)(1)]	Visible emissions will be observed at the drum filter system exhaust stack.	Pressure drop measured by a pressure gauge with accuracy of ± 1-inch water gauge over operating range.
B. Verification of Operational Status (new/modified monitoring equipment only) [64.3(b)(2)]	Not applicable.	Proper operation of the pressure drop monitoring equipment is verified during initial start-up.
C. QA/QC Practices and Criteria [64.3(b)(3)]	The observer shall have received training acceptable to the Division to recognize the appropriate opacity action levels.	All pressure drop measurement devices are installed and operated according to manufacturer's recommendations and guidelines.
D. Monitoring Frequency [64.3(b)(4)]	A daily check when weather permits.	Weekly.
Data Collection Procedures [64.3(b)(4)]	Visual readings manually recorded in a daily visible emissions (VE) log suitable for inspection or submittal to the Division.	Manual reading of gauge.
Averaging Period [64.3(b)(4)]	Not applicable.	Not applicable.

5.2.20 [Revoked]

5.2.21 After permanently changing to starch-based binder formulation, the Permittee shall, for each incinerator (G1I and G2I), inspect, adjust, clean, repair or replace fuel-burning equipment, including the burners, and moving and/or stationary parts necessary for proper operation, at least once every five years and as specified by the inspection and maintenance schedule.
[391-3-1-.02(2)(tt)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition 6.1.4.

b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

i. [Revoked]

ii. [Revoked]

iii. Any 3-hour block period for which the average temperature of any incinerator (G1I or G2I) is below the average temperature, established for that incinerator during the most recent performance test.

iv. [Revoked]

v. [Revoked]

vi. [Revoked]

vii. [Revoked]

viii. [Revoked]

xi. Any calendar week during which the average emissions of NO_x from glass melting furnace FG11 exceeds 13.5 pounds per ton of glass pulled, or NO_x emissions from glass melting furnace FG21 exceeds 8.9 pounds per ton of glass pulled, or NO_x emissions from glass melting furnace FG31 exceeds 7.4 pounds per ton of glass pulled, as determined by the procedures in Condition 6.2.8.
[391-3-1-.02(2)(yy) and NSR avoidance]

xvii. [Revoked]

c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)

ii. Any two consecutive water pressure readings of the pump supplying water to the FG-1 dropout box recorded in accordance with the requirements of Condition 5.2.4 that are less than 45 psi.

vii. Any pressure drop across a drum filter system (G3F1 or G3F2), which is outside the range established for that drum filter system per Condition 4.2.18a.

d. In addition to the excess emissions, exceedances and excursions specified above, the following should also be included with the report required in Condition 6.1.4:

i. [Revoked]

6.2 Specific Record Keeping and Reporting Requirements

6.2.3 [Revoked]

6.2.4 [Revoked]

6.2.5 [Revoked]

6.2.6 The Permittee shall maintain records of each incinerator (ID Nos. G1I and G2I) operating temperature and the results of periodic inspection of each incinerator's components, including any period when the temperature fell below the established average or the inspection identified problems with any incinerator. The Permittee shall also maintain records of the date and time of the problem, when corrective actions were initiated, the cause of the problem, an explanation of the corrective actions taken, and when the cause of the problem was corrected.
[391-3-1-.02(2)(tt)]

6.2.7 [Revoked]

6.2.17 [Revoked]

6.2.18 [Revoked]

6.2.20 After permanently changing to starch-based binder formulation, the Permittee shall, each month, calculate and record the 12-month consecutive binder solids applied in the forming sections of manufacturing lines FG-1 and FG-2. The Permittee shall, each month, calculate and record the previous month's VOC emission rate (tons) for each forming section (FG14 and FG24) by multiplying the emission factor for each forming section by the weight of binder solids applied in the forming section during the previous month.
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i), and NSR Avoidance]

6.2.21 [Revoked]

6.2.22 After permanently changing to starch-based binder formulation, the Permittee shall, each month, calculate and record the total 12-consecutive month VOC emission rate (ton/yr) from the manufacturing lines using the binder solids applied in each line and the emission factor of 0.008 (for FG-1) and 0.005 (for FG-2) lb VOC emitted/lb binder solid applied for the line obtained from the performance test required by Condition 4.2.17. The Permittee shall report to the Division within seven (7) days if the calculated total 12-consecutive month VOC emission rate exceeds 79.6 ton/yr and explain any corrective action taken to ensure that the emission rate will not exceed 79.6 ton/yr in the future.
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i), and NSR Avoidance]

6.2.24 After permanently changing to starch-based binder formulation usage, the Permittee shall submit a report to the Division within 60 days after the end of each calendar year during which records must be generated under 391-3-1-.02(7)(b)15(i)(III), and (IV) setting out the FG-1 and FG-2 manufacturing line annual emissions of NO_x, VOC, PM, PM_{10}, $PM_{2.5}$, CO, and SO_2 and, if applicable, the FG-1, FG-2, and FG-3 manufacturing line actual increase in emissions due to demand growth during the calendar year that preceded submission of the report.

The Permittee shall inform the Division in writing if emissions of NO_x, VOC, PM, PM_{10}, $PM_{2.5}$, CO, or SO_2 from the FG-1 and FG-2 manufacturing lines exceed the notification levels listed below:
[391-3-1-.02(7)(b)15(i)(V)]

Pollutant	Projected Actual Emissions (ton/yr)
CO	163.74
NO_x	73.22
VOC	79.6
SO_2	46.68
PM_T	264.28
PM_{10}	264.28
$PM_{2.5}$	241.43

6.2.25 During each run of the performance test required by Condition 4.2.17, the Permittee shall calculate, for each manufacturing line, the constants A, B, C, and D and determine the average constants A, B, C, and D. Within 60 days after the performance test(s), the Permittee shall notify the Division in writing the calculated average value of constants A, B, C, and D. Using the calculated average value of each constant and any assumptions made, the Permittee shall calculate the emission rate for total particulate matter (PM), as well as PM_{10}, $PM_{2.5}$, and NO_x, using the following equations:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

$$Mixing\ Chamber\ PM\left(\frac{lb}{hr}\right)=\frac{(A)(Pull)(LOI)^{1/2}}{SFW^{1/3}} \quad \text{.....(1)}$$

$$Smoke\ Stripper/Cooling\ PM\left(\frac{lb}{hr}\right)=(B)(Pull)(LOI) \quad \text{.....(2)}$$

$$Mixing\ Chamber\ NO_x\left(\frac{lb}{hr}\right)=(C)(Pull)(LOI) \quad \text{.....(3)}$$

$$Smoke\ Stripper/Cooling\ NO_x\left(\frac{lb}{hr}\right)=(D)(Pull)(LOI) \quad \text{.....(4)}$$

where:

Mixing chamber PM	=	Total PM emitted from mixing chamber (lb/hr
A, B, C, D	=	Constants determined from performance test(s)
Pull	=	Pull rate (ton/hr)
LOI	=	Weight percent binder solids on product (%)
SFW	=	Weight per square foot of insulation material (lb/ft^2)

After permanently changing to the starch-based binder formulation usage, the Permittee shall, each month, calculate from equations 1 through 4 the 12-month consecutive PM, PM_{10}, $PM_{2.5}$, and NO_x emission rate (ton/yr) from the FG-1 and FG-2 manufacturing lines to verify compliance with the corresponding PM, PM_{10}, $PM_{2.5}$, and NO_x emission level in Condition 6.2.24.

After permanently changing to the starch-based binder formulation usage, the Permittee shall, each month, calculate the 12-month consecutive CO and SO_2 emission rate (ton/yr) from the FG-1 and FG-2 manufacturing lines using the emission rate (lb/hr) derived from the performance test required by Condition 4.2.17 to verify compliance with the corresponding CO and SO_2 emission level in Condition 6.2.24.

After changing to loosefill fiberglass manufacturing on the FG-3 manufacturing line, the Permittee shall calculate, each month from equation 1, the 12-month consecutive PM emission rate (ton/yr) from the FG-1 mixing chamber to verify compliance with the PM emission limit in Condition 3.2.21.

Attachments

A. List of Standard Abbreviations and List of Permit Specific Abbreviations
B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups
C. List of References

ATTACHMENT A

List Of Standard Abbreviations

AIRS	Aerometric Information Retrieval System
APCD	Air Pollution Control Device
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BTU	British Thermal Unit
CAAA	Clean Air Act Amendments
CEMS	Continuous Emission Monitoring System
CERMS	Continuous Emission Rate Monitoring System
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System(s)
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring Stystem
dscf/dscm	Dry Standard Cubic Foot / Dry Standard Cubic Meter
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
gr	Grain(s)
GPM (gpm)	Gallons per minute
H_2O (H2O)	Water
HAP	Hazardous Air Pollutant
HCFC	Hydro-chloro-fluorocarbon
MACT	Maximum Achievable Control Technology
MMBtu	Million British Thermal Units
MMBtu/hr	Million British Thermal Units per hour
MVAC	Motor Vehicle Air Conditioner
MW	Megawatt
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x (NOx)	Nitrogen Oxides
NSPS	New Source Performance Standards
OCGA	Official Code of Georgia Annotated

PM	Particulate Matter
PM_{10} (PM10)	Particulate Matter less than 10 micrometers in diameter
PPM (ppm)	Parts per Million
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RMP	Risk Management Plan
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2 (SO2)	Sulfur Dioxide
USC	United States Code
VE	Visible Emissions
VOC	Volatile Organic Compound

List of Permit Specific Abbreviations

ATTACHMENT B

NOTE: Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment that are part of generic emissions groups may not necessarily cause this attachment to be updated.

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities*	Quantity
Antistat Application System	2
Asphalt Storage System (Tank and Coating)	1
Batch Charging (includes charger bins)	3
Batch House Rail/Truck Unload	1
Batch Mixing	1
Batch Scales	2
Batch Storage Bins	6
Batch Storage Silos	14
Batch Transfer/Bad Batch Chute	1
Belt Rollup	2
Binder Make-up Water Tank	*1*
Binder Mix Tank	**1**
Binder Circulation Tanks	*5*
Binder Surge Tank	**1**
Bisect Saw	3
Blue Die Applicator	3
Chop to Length	4
Citric Acid Storage Tank	*1*
Clarifier	1
Cold Glue Applicator System	2
Cullet Chute Systems	3
Cullet Glass Storage Bays	3
Edge Trim System	2
Emergency Basin	1
End of Line Automation Stretch Wrapping	1
Equalization Basins	3

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities*	Quantity
FG-1 Binder Use Tanks	2
FG-1 Wash Water Tank	1
FG-2 Binder Use Tanks	2
FG-2 Wash Water Tank	1
Form, Fill, and Seal Operation	1
Hood Wall Wash Water Recirculation Tank	*1*
Ink Jet Printer System	2
Inline Overwrap Printer System	2
Line Baggers	10
Maltodextrin Storage Tank	*2*
Pack Modulus	2
Packing and Overhead Conveyor System	1
Paper Room Shift Code Printer System	2
Pigment	*1*
Plant Cullet Storage Hopper and Bins	3
Premix Tanks	**3**
Process Water Shaker Screens and Screw Presses (7 WW Screens, 2 Slitting Screens)	11
Propane/Air Blenders	1
Reclaim Water Tank, Centrifuges and Trench System	1
Repack Baggers	2
Resin Tanks	2
Retail Operation	1
Rotary Chopper	2
Silane Tank	1
Slitter System	3
Sodium Hydroxide Storage Tank	*1*
Sodium Hypophosphite Storage Tank	*1*
Stretch Wrap Printer System	1
Tanker Unload Area	1
Thickener Tank	1

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities*	Quantity
Unitizer Operation	1
Unload to Truck Chute	1
Vacuum Roller	2
Wash Water Tanks	*9*

*Items in Italic Font style are new tanks that were added and items in Bold Font style are tanks that are being removed as part of the binder replacement project.

Tanks Not Previously Identified That Are Being Removed

- East and West premix tanks
- North and South resin tanks
- Dye tank
- Triazone tank
- Aqua ammonia run tank
- Ammonium sulfate - mix and surge tank

ATTACHMENT C

LIST OF REFERENCES

1. The Georgia Rules for Air Quality Control Chapter 391-3-1. All Rules cited herein which begin with 391-3-1 are State Air Quality Rules.

2. Title 40 of the Code of Federal Regulations; specifically 40 CFR Parts 50, 51, 52, 60, 61, 63, 64, 68, 70, 72, 73, 75, 76 and 82. All rules cited with these parts are Federal Air Quality Rules.

3. ***Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Testing and Monitoring Sources of Air Pollutants.***

4. ***Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Calculating Air Permit Fees***.

5. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources. This information may be obtained from EPA's TTN web site at *www.epa.gov/ttn/chief/ap42/index.html*.

6. The latest properly functioning version of EPA's **TANKS** emission estimation software. The software may be obtained from EPA's TTN web site at *www.epa.gov/ttn/chief/software/tanks/index.html*.

7. The Clean Air Act (42 U.S.C. 7401 et seq).

8. White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995 (White Paper #1).

9. White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996 (White Paper #2).