

Semi-Annual Monitoring Report
 May 1, 2012 to October 31, 2012
Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-1: "N" Electric Furnace, Channel and Forehearth
S-19: "O" Electric Furnace, Channel and Forehearth

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-A)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 16834, Part 7	Periodic (Daily)	Visual Observation and Recordkeeping	Yes	No
Opacity	BAAQMD Permit Condition 16834, Part 7	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 16834, Part 7	Periodic (Daily)	Visual Observation and Recordkeeping	Yes	No
Open Configuration Furnace Operation	BAAQMD Permit Condition 16834, Part 3	Hours of Operation < 480 hrs/yr for both furnaces	BAAQMD Permit Condition 16834, Part 4	Periodic (Daily)	Recordkeeping	Yes	No
Glass Production	BAAQMD Permit Condition 16834, Part 5	6 tons/hour 144 tons/day	BAAQMD Permit Condition 16834, Part 6	Periodic (Daily)	Recordkeeping	Yes	No

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-1: "M" Electric Furnace, Channel and Forehearth
S-19: "O" Electric Furnace, Channel and Forehearth

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-A)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
FP	BAAQMD Regulation 6-310	0.15 grains per dscft of exhaust gas volume	BAAQMD Permit Condition 16834, Part 8	Periodic (Once per Permit Term)	Source Test	Yes	No
FP	BAAQMD Regulation 6-311	$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	BAAQMD Permit Condition 16834, Part 8	Periodic (Once per Permit Term)	Source Test	Yes	No
SO ₂	BAAQMD Regulation 9-1-301	Ground Level Concentration of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-302	300 ppm (dry)	BAAQMD Permit Condition 16834, Part 9	Periodic (Once per Permit Term)	Source Test	Yes	No

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S-1: "M" Electric Furnace, Channel and Forehearth
S-19: "O" Electric Furnace, Channel and Forehearth

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-A)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Lead	BAAQMD Regulation 11-1-301	15 lb/day	BAAQMD Permit Condition 16834, Part 10	Periodic (Once per Permit Term)	Source Test	Yes	No
Lead	BAAQMD Regulation 11-1-302	Ground Level Concentration not to exceed 1.0 ugs/cubic meter, 24 hr. avg.	None	N/A	None	N/A	No
PM	40 CFR 63.1382 (a)(1)	0.5 lb/ton of glass pulled	BAAQMD Permit Condition 16834, Part 8	Periodic (Once per Permit Term)	Source Test	Yes	No
Batch Wetting Process: Water Flow Rate Limit	BAAQMD Permit Condition 16834, Part 11	Water flow rate \geq 0.3 GPM	40 CFR 63.1383 (e)(1) BAAQMD Permit Condition 16834, Part 11	Periodic (Daily)	Recordkeeping: Water Flow Rate	Yes	No

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S-1: "M" Electric Furnace, Channel and Forehearth

S-19: "O" Electric Furnace, Channel and Forehearth

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-A)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Cold Top Electric Furnace Temperature	40 CFR 63.1382 (b)(3)	Temperature measured at a location 46 to 61 centimeters (18 to 24 inches) above the molten glass surface $\leq 120^{\circ}\text{C}$ (250 $^{\circ}\text{F}$)	40 CFR 63.1383 (d)	Periodic (Daily: Once per Shift)	Recordkeeping: Temperature	Yes	No
Glass Pull Rate	40 CFR 63.1382 (b)(5)	Average glass pull rate for any 4-hour block period S-1 $\leq 12,421.2$ lbs S-19 $\leq 13,010.4$ lbs	40 CFR 63.1383 (f)(1)	Periodic (Hourly: rolling 4-hr block)	Recordkeeping: Glass Pull Rate	Yes	No

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate and "O" line did not produce products subject to MACT (Subpart NNN).

Source tests conducted from October 30, through November 7, 2008. Submitted to District on December 19, 2008.

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S-2: "M" Forming
S-20: "O" Forming

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-B)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 20565, Part 5	Periodic (Daily)	Visual Observation and Recordkeeping	Yes	No
Opacity	BAAQMD Permit Condition 20565, Part 5	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 20565, Part 5	Periodic (Daily)	Visual Observation and Recordkeeping	Yes	No
Glass Production	BAAQMD Permit Condition 20565, Part 13	6 tons/hour 144 tons/day	BAAQMD Permit Condition 20565, Part 14	Periodic (Daily)	Recordkeeping	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	BAAQMD Permit Condition 20565, Part 6	Periodic (Once per Permit Term)	Source Test	Yes	No
FP	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	BAAQMD Permit Condition 20565, Part 6	Periodic (Once per Permit Term)	Source Test	Yes	No

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S-2: "M" Forming
S-20: "O" Forming

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-B)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
SO ₂	BAAQMD Regulation 9-1-301	Ground Level Concentration of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-302	300 ppm (dry)	None	N/A	None	N/A	No
Formaldehyde	40 CFR 63.1382 (b)(9)	Free-Formaldehyde content of the resin in the binder S-2 ≤ 14.47% S-20 ≤ 14.44%	40 CFR 63.1383 (j)	Periodic (Each Occurrence)	Recordkeeping (Free-Formaldehyde Content of Resins Received)	N/A	No

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S-2: "M" Forming

S-20: "O" Forming

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-B)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Formaldehyde	40 CFR 63.1382 (b)(10)	Binder formulation for "M" & "O" Lines 2.07 pounds of phenol/formaldehyde resin per pound of urea in the premix	40 CFR 63.1383 (k)	Periodic (Daily)	Recordkeeping (Formulation of Binder Used Per Batch)	N/A	No
Formaldehyde	40 CFR 63.1382 (a)(2)(i)	1.2 lb/ton of glass pulled per Rotary Spin Manufacturing Line	BAAQMD Permit Condition 20565, Part 9	Periodic (Once per Permit Term)	Source Test	Yes	No

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate and "O" line did not produce products subject to MACT (Subpart NNN).

O-line source testing was conducted the week of April 23, 2012.

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-3: "M" Curing Oven
S-21: "O" Curing Oven

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-C)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 20565, Part 5	Periodic (Daily)	Visual Observation and Recordkeeping	Yes	No
Opacity	BAAQMD Permit Condition 20565, Part 5	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 20565, Part 5	Periodic (Daily)	Visual Observation and Recordkeeping	Yes	No
Glass Production	BAAQMD Permit Condition 20565, Part 13	6 tons/hour 144 tons/day	BAAQMD Permit Condition 20565, Part 14	Periodic (Daily)	Recordkeeping	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	BAAQMD Permit Condition 20565, Part 6	Periodic (Once per Permit Term)	Source Test	Yes	No
FP	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	BAAQMD Permit Condition 20565, Part 6	Periodic (Once per Permit Term)	Source Test	Yes	No

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S-3: "M" Curing Oven

S-21: "O" Curing Oven

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-C)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
FP	BAAQMD Permit Condition 20565, Part 3	Pressure drop range across A-99 1" wc to 20" wc	BAAQMD Permit Condition 20565, Part 4	Periodic (Once per Shift)	Recordkeeping	Yes	No
FP	BAAQMD Permit Condition 20565, Part 3	Pressure drop range across A-100 5" wc to 40" wc	BAAQMD Permit Condition 20565, Part 4	Periodic (Once per Shift)	Recordkeeping	Yes	No
FP	BAAQMD Permit Condition 20565, Part 3	Pressure drop range across A-101 1" wc to 20" wc	BAAQMD Permit Condition 20565, Part 4	Periodic (Once per Shift)	Recordkeeping	Yes	No
FP	BAAQMD Permit Condition 20565, Part 3	Pressure drop range across A-102 5" wc to 40" wc	BAAQMD Permit Condition 20565, Part 4	Periodic (Once per Shift)	Recordkeeping	Yes	No

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S-3: "M" Curing Oven
S-21: "O" Curing Oven

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-C)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
SO ₂	BAAQMD Regulation 9-1-301	Ground Level Concentration of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-302	300 ppm (dry)	None	N/A	None	N/A	No
Incinerator Firebox Temperature	40 CFR 63.1382 (b)(6)	Average firebox temperature at A-5, A-6 and A-25 for any 3-hour block period ≥ 1340 °F	40 CFR 63.1383 (g)(1)	Continuous	Recordkeeping (Firebox Operating Temperature)	N/A	No
Incinerator Firebox	BAAQMD Permit Condition 20565, Part 5	Proper Incinerator Maintenance	40 CFR 63.1383 (g)(2)	Periodic (Annual)	Inspection; Incinerator	Yes	No

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S-3: "M" Curing Oven
S-21: "O" Curing Oven

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-C)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Formaldehyde	40 CFR 63.1382 (a)(2)(i)	1.2 lb/ton of glass pulled per Rotary Spin Manufacturing Line	BAAQMD Permit Condition 20565, Part 9	Periodic (Once per Permit Term)	Source Test	Yes	No

Comments: For the May 1, 2011 – October 31, 2012 reporting period, "M" line did not operate. During this same period "O" line did not produce products subject to MACT (Subpart NNN); converted to starch-based binder.

O-line source test was conducted the week of April 23, 2012.

Annual inspection and maintenance was performed on the O Line incinerator on October 23, 2012.

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S-4: "M" Cooling
S-22: "O" Cooling

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-D)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 20566, Parts 4	Periodic (Daily)	Visual Observation and Recordkeeping	Yes	No
Opacity	BAAQMD Permit Condition 20566, Part 4	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 20566, Parts 4	Periodic (Daily)	Visual Observation and Recordkeeping	Yes	No
Glass Production	BAAQMD Permit Condition 20566, Part 7	6 tons/hour 144 tons/day	BAAQMD Permit Condition 20566, Part 8	Periodic (Daily)	Recordkeeping	N/A	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	BAAQMD Permit Condition 20566, Part 5	Periodic (Once per Permit Term)	Source Test	Yes	No
FP	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	BAAQMD Permit Condition 20566, Part 5	Periodic (Once per Permit Term)	Source Test	Yes	No

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S-4: "M" Cooling
S-22: "O" Cooling

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-D)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
FP	BAAQMD Permit Condition 20566, Part 2	Pressure drop range across A-7 0.1" wc to 3" wc	BAAQMD Permit Condition 20566, Part 3	Periodic (Daily)	Recordkeeping	Yes	No
FP	BAAQMD Permit Condition 20566, Part 2	Pressure drop range across A-26 1" wc to 10" wc	BAAQMD Permit Condition 20566, Part 3	Periodic (Daily)	Recordkeeping	Yes	No
FP	BAAQMD Permit Condition 20566, Part 2	Water flow rate across A-26 50 gpm to 250 gpm	BAAQMD Permit Condition 20566, Part 3	Periodic (Daily)	Recordkeeping	Yes	No
SO ₂	BAAQMD Regulation 9-1-301	Ground Level Concentration of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	None	N/A	None	N/A	No

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S-4: "M" Cooling
S-22: "O" Cooling

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-D)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
SO ₂	BAAQMD Regulation 9-1-302	300 ppm (dry)	None	N/A	None	N/A	No
Formaldehyde	40 CFR 63.1382 (a)(2)(i)	1.2 lb/ton of glass pulled per Rotary Spin Manufacturing Line	40 CFR 63.1383 (i)	Periodic (Daily)	Recordkeeping (Finished Product LOI and Density)	N/A	No
Formaldehyde	40 CFR 63.1382 (a)(2)(i)	1.2 lb/ton of glass pulled per Rotary Spin Manufacturing Line	BAAQMD Permit Condition 20566, Part 6	Periodic (Once per Permit Term)	Source Test	Yes	No

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate. During this same period "O" line did not produce products subject to MACT (Subpart NNN); converted to starch-based binder.
 O Line source tests conducted the week of April 23, 2012.

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-26: Sandblasting Room

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-E)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 15250, Part 6	Periodic (Monthly)	Visual Observation and Recordkeeping	Yes	No
Opacity	BAAQMD Permit Condition 15250, Part 6	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 15250, Part 6	Periodic (Monthly)	Visual Observation and Recordkeeping	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	None	N/A	None	N/A	No
FP	BAAQMD Permit Condition 15250, Part 7	Pressure drop range across A-149 0" wc to 10" wc	BAAQMD Permit Condition 15250, Part 6	Periodic (Monthly)	Recordkeeping	Yes	No

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S-56: Batch Materials Silo & Unloading System
 Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-G)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	None	Periodic (Weekly)	Visual Observation	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dscf of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Regulation 6-311	$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N/A	None	N/A	No

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S-57: Batch Mixing

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-H)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	None	Periodic (Weekly)	Visual Observation	Yes	No
Opacity	BAAQMD Permit Condition 12144, Part 2	Ringelmann 0.5 For less than 3 minutes in an hour	BAAQMD Permit Condition 12144, Part 3	Periodic (Weekly)	Visual Observation and Recordkeeping	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Permit Condition 12144, Part 4	0.015 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	None	N/A	None	N/A	No
FP	BAAQMD Permit Condition 12144, Part 3	Pressure drop range across A-48 0" wc to 10" wc	BAAQMD Permit Condition 12144, Part 2	Periodic (Weekly)	Recordkeeping	Yes	No

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-61: "M" Packing Dust Collection System
S-62: "O" Packing Dust Collection System

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-1)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	None	Periodic (Weekly)	Visual Observation	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate.

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- S-65: Fire System Diesel Pump
- S-166: Cullet Water Standby Generator
- S-167: Cooling Water Standby Generator

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-J)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-303	Ringelmann 2.0 For less than 3 minutes in an hour	None	N/A	Visual Observation	N/A	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsclf of exhaust gas volume	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-301	Ground Level Concentration of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-304	Sulfur Content of Fuel < 0.5% by weight	BAAQMD Permit Condition 19142, Part 3	Periodic (Every Occurrence)	Fuel Certification by Vendor	Yes	No

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- S-65: Fire System Diesel Pump
- S-166: Cullet Water Standby Generator
- S-167: Cooling Water Standby Generator

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-J)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Hours of Operation: Emergency Use	BAAQMD Regulation 9-8-330.1	Unlimited	BAAQMD Permit Condition 19142, Part 1	Periodic (Every Occurrence)	Running Time Clock and Recordkeeping	Yes	No
Opacity	BAAQMD Regulation 6-303	Ringelmann 2.0 For less than 3 minutes in an hour	None	N/A	Visual Observation	N/A	No

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate.

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S-66: EM-3 Standby Diesel Generator
S-67: "O" Line Standby Diesel Generator
S-68: "M" Line Standby Diesel Generator

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-K)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-303	Ringelmann 2.0 For less than 3 minutes in an hour	None	N/A	Visual Observation	N/A	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-301	Ground Level Concentration of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-304	Sulfur Content of Fuel < 0.5% by weight	BAAQMD Permit Condition 19142, Part 3	Periodic (Each Occurrence)	Fuel Certification by Vendor	Yes	No

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- S-66: EM-3 Standby Diesel Generator
- S-67: "O" Line Standby Diesel Generator
- S-68: "M" Line Standby Diesel Generator

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-K)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Hours of Operation: Emergency Use	BAAQMD Regulation 9-8-330.1	Unlimited	BAAQMD Permit Condition 19142, Part 1	Periodic (Each Occurrence)	Running Time Clock and Recordkeeping	Yes	No
Hours of Operation -- Reliability: Related Activities	BAAQMD Regulation 9-8-330.2	100 hours per year	BAAQMD Permit Condition 19142, Part 1	Periodic (Each Occurrence)	Running Time Clock and Recordkeeping	Yes	No

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate.

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S-69: "M" Line Asphalt Applicator
S-70: "O" Line Asphalt Applicator

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-L)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	BAAQMD Permit Condition 12672, Part 4	Periodic (Weekly)	Visual Observation and Recordkeeping	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	None	N/A	None	N/A	No
VOC	BAAQMD Regulation 8-2-301	15 lb/day and 300 ppm (dry basis) total carbon	BAAQMD Permit Condition 12672, Part 6	Periodic (Once Per Permit Term)	Source Test	Yes	No

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-69: "M" Line Asphalt Applicator
S-70: "O" Line Asphalt Applicator

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-L)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
H ₂ S	BAAQMD Regulation 9-2-301	Ground Level Concentration during any 24 hour period of less than 0.06 ppm averaged over three consecutive minutes or less than 0.03 ppm averaged over any 60 consecutive minutes.	None	N/A	None	N/A	No

Comments: For the May 1, 2012- October 31, 2012 reporting period, "M" line did not operate.
 O Line source tests conducted October 30 through November 7, 2008. Submitted results to District on December 19, 2008.

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-86: "M" Batch Transporter Bin & Silo

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-M)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	None	Periodic (Weekly)	Visual Observation	N/A	No
Opacity	BAAQMD Permit Condition 12144, Part 6	Ringelmann 0.5 For less than 3 minutes in an hour	BAAQMD Permit Condition 12144, Part 7	Periodic (Weekly)	Visual Observation and Recordkeeping	N/A	No
FP	BAAQMD Regulation 6-310	0.15 grains per dscl of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Permit Condition 12144, Part 8	0.015 grains per dscl of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	None	N/A	None	N/A	No

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate.

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-87: "O" Batch Transporter Bin & Silo

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-N)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	None	Periodic (Weekly)	Visual Observation	Yes	No
Opacity	BAAQMD Permit Condition 12144, Part 10	Ringelmann 0.5 For less than 3 minutes in an hour	BAAQMD Permit Condition 12144, Part 11	Periodic (Weekly)	Visual Observation and Recordkeeping	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Permit Condition 12144, Part 12	0.015 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Regulation 6-311	4.10P ^{0.67} lb/hr, where P is process weight, ton/hr	None	N/A	None	N/A	No

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-90: Bad Batch Bin

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-O)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	None	Periodic (Weekly)	Visual Observation	Yes	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
FP	BAAQMD Regulation 6-311	$4.10P^{0.67}$ lb/hr, where P is process weight, ton/hr	None	N/A	None	N/A	No

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-92: Nebraska Boiler Firing Natural Gas (Standby Fuel – Diesel)

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-P)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-301	Ringelmann 1.0 For less than 3 minutes in an hour	None	N/A	Visual Observation	N/A	No
FP	BAAQMD Regulation 6-310.3	0.15 grains per dsct of exhaust gas volume at 6% O ₂	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-301	Ground Level Concentration of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-302	300 ppm (dry)	None	N/A	None	N/A	No

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-92: Nebraska Boiler Firing Natural Gas (Standby Fuel – Diesel)

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-P)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
SO ₂	BAAQMD Regulation 9-1-304	Sulfur Content < 0.5% by weight, for liquid fuel < 300 ppm (dry), for solid fuel	BAAQMD Permit Condition 10924, Parts 3, 4	Periodic (Every Occurrence)	Fuel Certification by Vendor and Recordkeeping	N/A	No
SO ₂	BAAQMD Permit Condition 10924, Part 1	< 0.5% by weight, for liquid fuel	BAAQMD Permit Condition 10924, Parts 3, 4	Periodic (Every Occurrence)	Fuel Certification by Vendor, Recordkeeping	N/A	No
NO _x	BAAQMD Regulation 9-7-301.1	30 ppmv @ 3%O ₂ dry, gaseous fuel	None	N/A	None	N/A	No
NO _x	BAAQMD Regulation 9-7-302.1	40 ppmv @ 3%O ₂ , dry, liquid fuel	BAAQMD Permit Condition 10924, Part 5	Periodic (Prior to Initial Use of Non-Gaseous Fuel)	Source Test	N/A	No

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S-92: Nebraska Boiler Firing Natural Gas (Standby Fuel – Diesel)

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-P)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
NO _x	BAAQMD Regulation 9-7-305.1	150 ppmv @ 3%O ₂ , dry, 3-hr average Natural Gas Curtailment – Non Gaseous Fuel	None	N/A	None	N/A	No
NO _x	BAAQMD Regulation 9-7-306.1	150 ppmv @ 3%O ₂ , dry, 3-hr average Equipment Testing – Non Gaseous Fuel	None	N/A	None	N/A	No
CO	BAAQMD Regulation 9-7-301.2	400 ppmv @ 3%O ₂ , dry, 3-hr average Gaseous Fuel	None	N/A	None	N/A	No
CO	BAAQMD Regulation 9-7-302.2	400 ppmv @ 3%O ₂ , dry, 3-hr average Non-Gaseous Fuel	BAAQMD Permit Condition 10924, Part 5	Periodic (Prior to Initial Use of Non-Gaseous Fuel)	Source Test	N/A	No

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5-92: Nebraska Boiler Firing Natural Gas (Standby Fuel – Diesel)

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-P)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
CO	BAAQMD Regulation 9-7-305.2	400 ppmv @ 3%O ₂ , dry, 3-hr average Natural Gas Curtailment: Non Gaseous Fuel	None	N/A	None	N/A	No
CO	BAAQMD Regulation 9-7-306.2	400 ppmv @ 3%O ₂ , dry, 3-hr average Equipment Testing – Non Gaseous Fuel	None	N/A	None	N/A	No
Heat Input	BAAQMD Permit Condition 10924, Part 2	< 12.2 MM Btu/hr	BAAQMD Permit Condition 10924, Part 4	C	Recordkeeping (Fuel Meter)	N/A	No

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Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-Q)

S-155: "M" Line Inkjet Printing System								
S-156: "O" Line Ink Jet Printing System								
Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)	
VOC	BAAQMD Regulation 8-4-302.3	3.5 lbs/gallon	BAAQMD Permit Condition 14391, Part 7	Periodic (Monthly)	Recordkeeping	Yes	No	
VOC	SIP Regulation 8-4-302	5 tons POC on a calendar year basis	BAAQMD 8-4-501	Periodic (Monthly)	Recordkeeping	Yes	No	
VOC	BAAQMD Permit Condition 14391, Part 1	Annual Ink Usage < 360 gallons for both sources combined	BAAQMD Permit Condition 14391, Part 7	Periodic (Monthly)	Recordkeeping	Yes	No	
VOC	BAAQMD Permit Condition 14391, Part 4	Annual POC Emissions < 0.082 TPY for both sources combined	BAAQMD Permit Condition 14391, Part 7	Periodic (Annually)	Recordkeeping	Yes	No	

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate.

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S-157: "M" Machine Flexographic Printers
S-158: "O" Machine Flexographic Printers

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-R)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
VOC	BAAQMD Regulation 8-20-302	2.5 lbs/gallon	BAAQMD Permit Condition 12378, Part 6	Periodic (Monthly)	Recordkeeping	Yes	No
VOC	BAAQMD Permit Condition 12378, Part 1	Annual Ink Usage < 32,000 gallons per source	BAAQMD Permit Condition 12378, Part 6	Periodic (Monthly)	Recordkeeping	Yes	No
VOC	BAAQMD Permit Condition 12378, Part 4	Annual POC Emissions < 40,032 TPY from both sources combined	BAAQMD Permit Condition 12378, Part 6	Periodic (Annually)	Recordkeeping	Yes	No

Comments: For the May 1, 2012 – October 31, 2012 reporting period, "M" line did not operate.

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S-163: Maintenance Paint Shop Spray Booth

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-S)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
VOC: Air-Dried Coating	BAAQMD Regulation 8-19-302.2	340 g/L (2.8 lbs/gal)	8-19-501	Periodic (Every Occurrence)	Recordkeeping	Yes	No
VOC: Air-Dried Coating	SIP Regulation 8-19-302.2	340 g/L (2.8 lbs/gal)	8-19-501	Periodic (Every Occurrence)	Recordkeeping	Yes	No
VOC: Coating	BAAQMD Regulation 8-31-302	340 g/L (2.8 lbs/gal)	8-31-501	Periodic (Every Occurrence)	Recordkeeping	Yes	No
VOC: Coating	SIP Regulation 8-31-302	340 g/L (2.8 lbs/gal)	8-31-501	Periodic (Every Occurrence)	Recordkeeping	Yes	No
VOC: Annual Limits	BAAQMD Permit Condition 15250, Part 1	Coating < 125 gal/yr Cleanup Solvent < 110 gal/yr POC Emissions < 0.544 TPY	BAAQMD Permit Condition 15250, Parts 4, 5	Periodic (Daily, Weekly, Monthly)	Recordkeeping	Yes	No

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S-164: Boilerhouse Standby Diesel Generator

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-T)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Opacity	BAAQMD Regulation 6-303	Ringelmann 2.0 For less than 3 minutes in an hour	None	N/A	None	N/A	No
FP	BAAQMD Regulation 6-310	0.15 grains per dsct of exhaust gas volume	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-301	Ground level Concentration of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours	None	N/A	None	N/A	No
SO ₂	BAAQMD Regulation 9-1-304	Sulfur Content of Fuel < 0.5% by weight	BAAQMD Permit Condition 19142, Part 3	Periodic (Each Occurrence)	Fuel Certification by Vendor	Yes	No
Hours of Operation: Emergency Use	BAAQMD Regulation 9-8-330.1	Unlimited	BAAQMD Permit Condition 19142, Part 2	Periodic (Each Occurrence)	Running Time Clock and Recordkeeping	Yes	No

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Owens Corning Insulating Systems, LLC - Santa Clara, CA

S-164: Boilerhouse Standby Diesel Generator

Applicable Limits and Compliance Monitoring Requirements (Major Facility Review Permit (01/30/07) Table VII-T)

Type of Limit	Citation of Limit	Limit	Monitoring Requirement Citation	Monitoring Frequency	Monitoring Type	Monitoring Performed (Yes/No)	Deviations (Yes/No)
Hours of Operation – Reliability: Related Activities	BAAQMD Regulation 9-8-330.2	100 hours per year	BAAQMD Permit Condition 19142, Part 2	Periodic (Each Occurrence)	Running Time Clock and Recordkeeping	Yes	No