



NOV 08 2012

Jeff Curtin
CertainTeed Corporation
17775 Avenue 23 1/2
Chowchilla, CA 93610

**Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)
District Facility # C-261
Project # C-1120768**

Dear Mr. Curtin:

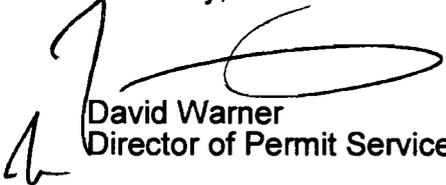
Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The modifications proposed in this project consist of the following: lowering the NOx and SOx emission factors for compliance with District Rule 4354; adding SOx and PM10 parametric monitoring requirements for compliance with District Rule 4354; and modifying the daily final stack emissions limit.

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,



David Warner
Director of Permit Services

Enclosures
cc: Derek Fukuda, Permit Services

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel (209) 557-6400 FAX (209) 557 6475

Central Region (Main Office)
199D E Gettysburg Avenue
Fresno, CA 93726-0244
Tel (559) 230 6000 FAX (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308 9725
Tel: 661 392 5500 FAX 661 392 5585



NOV 08 2012

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

Re: **Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)**
District Facility # C-261
Project # C-1120768

Dear Mr. Rios:

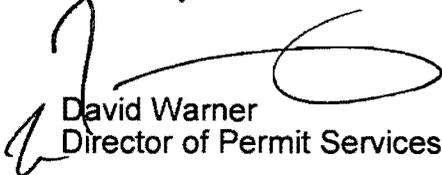
Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for CertainTeed Corporation, located at 17775 Avenue 23 1/2 in Chowchilla, which has been issued a Title V permit. CertainTeed Corporation is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The modifications proposed in this project consist of the following: lowering the NOx and SOx emission factors for compliance with District Rule 4354; adding SOx and PM10 parametric monitoring requirements for compliance with District Rule 4354; and modifying the daily final stack emissions limit.

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authorities to Construct # C-261-2-24, -3-13, and -4-11 with Certificate of Conformity. After demonstrating compliance with the Authorities to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900

Thank you for your cooperation in this matter.

Sincerely,



David Warner
Director of Permit Services

Enclosures
cc: Derek Fukuda, Permit Services

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356 8718
Tel (209) 557 6400 FAX (209) 557 6475

Central Region (Main Office)
1990 E Gettysburg Avenue
Fresno, CA 93726 0244
Tel (559) 230-6000 FAX (559) 230 6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel 661 392 5500 FAX 661 392 5585

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Modification of Fiberglass Production Operation for Rule 4354 Compliance

Facility Name: CertainTeed Corporation
Mailing Address: 17775 Avenue 23 ½
Chowchilla, CA 93610
Contact Person: Jeff Curtin
Telephone: (559) 665-4831
Fax: (559) 665-3321
E-Mail: Jeff.t.curtin@saint-gobain.com
Application #(s): C-261-2-24, -3-13, and -4-11
Project #: C-1120768
Deemed Complete: April 23, 2012

Date: September 25, 2012
Engineer: Derek Fukuda
Lead Engineer: Joven Refuerzo

I. Proposal

CertainTeed Corporation is applying for Authority to Construct permits (ATC's) for modifications to their existing glass melting oxy-fuel furnace, C-11 production line, and C-12 production line, draft Permits to Operate (PTO's) C-261-2-25, -3-12, and -4-10 (see Appendix B). These modifications will consist of the following:

- Lowering the NO_x emission limit on the furnace in unit -2 from 4.0 lb/ton to 3.0 lb/ton for compliance with the Tier 3 NO_x emission limit in District Rule 4354.
- Adding a SO_x emission limit of 0.90 lb-SO_x/ton for compliance with the SO_x emission limit in District Rule 4354.
- Adding SO_x and PM₁₀ parametric monitoring requirements for compliance with the requirements of District Rule 4354.
- Modifying the final stack daily emission limit on all three permit units in this project. All three units share one common stack and each permit contains a combined final stack daily emission limit. Since lowering the NO_x emission factor on unit -2 will lower the daily emissions from the final stack, all three permits will be modified to include the newly calculated final stack daily emission limit.

These modifications are proposed solely to comply with District Rule 4354 requirements. Since there is a change to the method of operation of the furnace, and C-11 and C-12 operating line that necessitates a change to the permit conditions, these changes are modifications pursuant to District Rule 2201, *New and Modified Stationary Source Review Rule*.

Draft PTO's C-261-2-25, -3-12, and -4-10 are currently being processed in Minor Modification project C-1111180. Since the new ATC's issued in this project will be based on the PTO's in project C-1111180, a condition will be added to the permits in this project to assure the PTO's in project C-1111180 are implemented prior to the implementation of the ATC's in this project.

CertainTeed Corporation received their Title V Permit on May 1, 1998. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. CertainTeed Corporation must apply to administratively amend their Title V permit.

II. Applicable Rules

- Rule 2201 New and Modified Stationary Source Review Rule (April 21, 2011)
- Rule 2520 Federally Mandated Operating Permits (June 21, 2001)
- Rule 4001 New Source Performance Standards (April 14, 1999)
40 CFR 60, Subpart CC – Standards of Performance for Glass Manufacturing Plants
- Rule 4002 National Emission Standards for Hazardous Air Pollutants (May 20, 2004)
40 CFR 61 Subpart N – National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants
40 CFR 63, Subpart NNN – National Emission Standard for Hazardous Air Pollutants for Wool Fiberglass Manufacturing
- Rule 4101 Visible Emissions (February 17, 2005)
- Rule 4102 Nuisance (December 17, 1992)
- Rule 4201 Particulate Matter – Concentration (December 17, 1992)
- Rule 4202 Particulate Matter – Emission Rate (December 17, 1992)
- Rule 4301 Fuel Burning Equipment (December 17, 1992)
- Rule 4354 Glass Melting Furnaces (October 16, 2008)
- Rule 4801 Sulfur Compounds (December 17, 1992)
- CH&SC 41700 California Health & Safety Code, Sec 41700, Health Risk Assessment
- CH&SC 42301 California Health & Safety Code, Sec 42301.6, School Notice
- Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
- California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 17775 Avenue 23 ½ in Chowchilla, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

Raw materials, consisting mainly of sand, soda ash, borax, dolomite, limestone, and sodium sulfate, are delivered to the plant and stored for process use. The materials are automatically weighed, mixed, and transferred to the glass melting furnace.

A batch-fed mechanism automatically inserts the mixture into the refractory-type glass melting furnace. The furnace is capable of firing natural gas, fuel oil, or propane. The furnace melts and conditions the batch for further processing. The exhaust gases from the furnace are contacted with a small stream of caustic solution and are then fed to an electrostatic precipitator (ESP) for particulate matter removal.

From the furnace, the glass proceeds to two manufacturing lines -- the C-11 and the C-12 production lines. The C-12 production line produces a blown fiberglass, while the C-11 line produces a matted fiberglass product. The C-12 line does not add organic binding material, but rather fiberizes the glass to produce a material which is bagged and eventually used as a blown insulating product. The C-11 line is a more standard process involving fiberizing, forming, and thermally setting a binder resin into a glass product. Each line has a forehearth section with gas-fired burners which make temperature and viscosity correction to the molten glass before it enters the fiberizer sections.

Each line has a fiberizing section. In this section, a special alloy spinner rotating at high speed, in conjunction with a high velocity gas flame, attenuates the molten glass into long thin fibers. The air emissions from each fiberizing section proceed to the wet cyclonic scrubbers for particulate/material removal. Then the exhaust further vents to their respective ESPs for additional PM₁₀ control before exhausting to the final stack.

After fiberizing the C-12 line product proceeds to shredding and bagging sections. Ultimately, the C-12 product is packed, stored, and transported to market.

After fiberizing the C-11 product is cooled with a water/resinous material and forced by air to lay on a conveyor in the form of a mat. The mat proceeds to the curing section which consists of a natural gas-fired oven. The oven air emissions are routed through a different ESP before exhausting to the final stack. From the oven, the material is slit and if necessary, faced with an adhesive and paper. The product is chopped into lengths and rolled or packaged as required for transport to market.

The facility operates 24 hours per day, 365 days per year.

V. Equipment Listing

Pre-Project Equipment Description:

C-261-2-25: 96 MMBTU/HR, 325 METRIC TONS/DAY GLASS MELTING OXY-FUEL FURNACE WITH 12 (8 MMBTU/HR EACH) COMBUSTION TEC. FLAT FLAME BURNERS

- C-261-3-12:** 51.44 MMBTU/HR C-11 PRODUCTION LINE CONSISTING OF FOREHEARTH #1, GLASS FIBERIZER & MAT FORMING, CURING OVEN, MAT COOLING, SLITTING & TRIMMING, FACING, INFRARED DRYER, AND ROLL UP PACKAGING AND CONTROL DEVICES
- C-261-4-10:** 27.44 MMBTU/HR C-12 LINE INCLUDING FOREHEARTH #2; FIBERIZER CONTROLLED BY 3 FISHER-KLOSTERMANN (F-K) CYCLONIC SCRUBBERS; COLLECTION & SHREDDING CONTROLLED BY 2 CERTAINTeed CYCLONES/F-K SCRUBBERS/C-12 WET EP; BAGGING CONTROLLED BY BAGHOUSE #2

Authority to Construct Equipment Description:

- C-261-2-24:** MODIFICATION OF 96 MMBTU/HR, 325 METRIC TONS/DAY GLASS MELTING OXY-FUEL FURNACE WITH 12 (8 MMBTU/HR EACH) COMBUSTION TEC. FLAT FLAME BURNERS: REDUCE NO_x AND SO_x EMISSIONS LIMITS, AND ADD SO_x AND PM₁₀ PARAMETRIC MONITORING REQUIREMENTS FOR COMPLIANCE WITH RULE 4354, AND LOWER THE NO_x and SO_x DAILY EMISSIONS LIMITS SHARED WITH UNITS -3 AND -4
- C-261-3-13:** MODIFICATION OF 51.44 MMBTU/HR C-11 PRODUCTION LINE CONSISTING OF FOREHEARTH #1, GLASS FIBERIZER & MAT FORMING, CURING OVEN, MAT COOLING, SLITTING & TRIMMING, FACING, INFRARED DRYER, AND ROLL UP PACKAGING AND CONTROL DEVICES: LOWER THE NO_x AND SO_x DAILY EMISSIONS LIMITS SHARED WITH UNITS -2 AND -4
- C-261-4-11:** MODIFICATION OF 27.44 MMBTU/HR C-12 LINE INCLUDING FOREHEARTH #2; FIBERIZER CONTROLLED BY 3 FISHER-KLOSTERMANN (F-K) CYCLONIC SCRUBBERS; COLLECTION & SHREDDING CONTROLLED BY 2 CERTAINTeed CYCLONES/F-K SCRUBBERS/C-12 WET EP; BAGGING CONTROLLED BY BAGHOUSE #2: LOWER THE NO_x AND SO_x DAILY EMISSIONS LIMITS SHARED WITH UNITS -2 AND -3

Post Project Equipment Description:

- C-261-2-24:** 96 MMBTU/HR, 325 METRIC TONS/DAY GLASS MELTING OXY-FUEL FURNACE WITH 12 (8 MMBTU/HR EACH) COMBUSTION TEC. FLAT FLAME BURNERS AND A DRY ELECTROSTATIC PRECIPITATOR (DESP)
- C-261-3-13:** 51.44 MMBTU/HR C-11 PRODUCTION LINE CONSISTING OF FOREHEARTH #1, GLASS FIBERIZER & MAT FORMING, CURING OVEN, MAT COOLING, SLITTING & TRIMMING, FACING, INFRARED DRYER, AND ROLL UP PACKAGING AND CONTROL DEVICES
- C-261-4-11:** 27.44 MMBTU/HR C-12 LINE INCLUDING FOREHEARTH #2; FIBERIZER CONTROLLED BY 3 FISHER-KLOSTERMANN (F-K) CYCLONIC SCRUBBERS;

COLLECTION & SHREDDING CONTROLLED BY 2 CERTAINTEED
CYCLONES/F-K SCRUBBERS/C-12 WET EP; BAGGING CONTROLLED BY
BAGHOUSE

VI. Emission Control Technology Evaluation

Operation of the furnace results in emissions of NO_x, SO_x, PM₁₀, CO, and VOC from the combustion of fuels and melting of the glass constituents. The natural gas-fired furnace employs oxygenated fuel to reduce NO_x emissions, as well as a dry electrostatic precipitator (ESP) for PM control and a caustic soda injection system (scrubber) for SO_x control.

The ESP removes particulate matter (PM) emissions from the flue gas by electrically charging the particles and collects them onto the grounded surfaces. The particulates are then removed by rapping the collection plates.

The oxy-fuel furnace reduces NO_x emissions by minimizing the availability of nitrogen. Nitrogen makes up about 78% of the ambient air. In an uncontrolled furnace, ambient air is introduced into the furnace with the fuel gas for combustion. NO_x emissions are formed by chemical reaction of the nitrogen in the combustion air during the combustion process. By removing the availability of nitrogen from the combustion air, NO_x emissions are thus reduced. The oxy-fuel furnace is designed, maintained, and operated to minimize the infiltration of the ambient air into the combustion zone.

VII. General Calculations

A. Assumptions

- Facility operates 8,760 hours per year (per Applicant).
- Natural gas F factor is 8,578 dscf/MMBtu (@ 60 °F).
- Heating value of natural gas is 1,000 Btu/scf. (per District Policy).
- LPG fuel heating value is 94,000 Btu/gal (AP-42 Appendix A, 9/85).
- Grain conversion: 1 pound = 7,000 grains (AP-42-Appendix A-18).
- The glass furnace is fired on natural gas and uses oil and LPG/propane as backup fuels.
- Diesel backup fuel = 0.0015% by weight sulfur.
- The pre and post-project furnace production rate is 325 Metric tons of glass melted per day (approximately 358 tons per day) (per PTO).
- The pre and post-project furnace production rate is 118,625 Metric tons of glass melted per year (equivalent to a daily average of 325 MT/day) (per PTO).
- As a worst case assumption, all current PM limits will also be taken to be PM₁₀ limits (per applicant).

B. Emission Factors

Pre-Project Emission Factors:

Unit C-261-2-25:

The following emission factors apply to the glass furnace:

Pre-Project Emission Factors (EF1) - Furnace		
	EF1	Source
NO _x	4.0 lb/ton	Rule 4354 (Tier 2) & Permit Limit
PM	0.5 lb/ton	Current Permit
PM ₁₀	0.5 lb/ton	Current Permit
CO	1.0 lb/ton	Rule 4354 (Tier 2) & Permit Limit
VOC	0.25 lb/ton	Rule 4354 (Tier 2) & Permit Limit

The following emission rates apply to the Final Stack:

Pre-Project Final Stack Emission Rates							
	NO _x	SO _x	PM	PM ₁₀	CO	HC	VOC
Mass Emission Rate (Final Stack, lb/hr)	55.9	24.3 (NG)	22.8	22.8	44.7	18.0	18.0
		54.0 (FO)					

Unit C-261-3-12:

The following emission factors apply to the 7.34 MMBtu/hr Forehearth, the 8 – 3.8 MMBtu/hr fiberizers, and the 17.5 MMBtu/hr curing oven (with 5 – 3.5 MMBtu/hr burners):

Pre-Project Emission Factors (EF1) - Natural Gas			
	lb/MMscf	lb/MMBtu	Source
NO _x	100	0.1	AP-42 Table 1.4-1
SO _x	--	0.00285	District Policy APR 1720
PM ₁₀	7.6	0.0076	AP-42 Table 1.4-2
CO	84	0.084	AP-42 Table 1.4-1
VOC	5.5	0.0055	AP-42 Table 1.4-2

The following emission factor applies to the baghouse (shared by Permit Unit –4):

Pre-Project Emission Factors (EF1) - Baghouse		
	gr/dscf	Source
PM ₁₀	0.001	Per Applicant

Unit C-261-4-10:

The following emission factors apply to the 4.66 MMBtu/hr Forehearth and the 6 – 3.8 MMBtu/hr and the 2 – (new) 4.8 MMBtu/hr fiberizers:

Pre-Project Emission Factors (EF1)			
	lb/MMscf	lb/MMBtu	Source
NO _x	100	0.1	AP-42 Table 1.4-1
SO _x	--	0.00285	District Policy APR 1720
PM ₁₀	7.6	0.0076	AP-42 Table 1.4-2
CO	84	0.084	AP-42 Table 1.4-1
VOC	5.5	0.0055	AP-42 Table 1.4-2

Post-Project Emission Factors:

C-261-2-24:

The following emission factors apply to the glass furnace:

Post-Project Emission Factors (EF2) - Furnace		
	EF1	Source
NO _x	3.0 lb/ton	Rule 4354 (Tier 3)
SO _x	0.90 lb/ton	Rule 4354
PM	0.5 lb/ton	Current Permit
PM ₁₀	0.5 lb/ton	Current Permit
CO	1.0 lb/ton	Rule 4354 (Tier 2) & Permit Limit
VOC	0.25 lb/ton	Rule 4354 (Tier 2) & Permit Limit

The following emission rates apply to the Final Stack:

Post-Project Final Stack Emission Rates							
	NO_x	SO_x	PM	PM₁₀	CO	HC	VOC
Mass Emission Rate (Final Stack, lb/hr)	55.9	24.3 (NG)	22.8	22.8	44.7	18.0	18.0
		54.0 (FO)					

The State of California now requires the use of very low sulfur diesel fuel (15 ppmv sulfur). Natural gas (1.0 gr-S/100scf) has higher sulfur content than very low sulfur diesel (15 ppmw sulfur). The facility has indicated that SO_x is not solely emitted by the combustion of fuel in the furnace, therefore the fuel oil emission limit is valid and will not be reduced based on new fuel sulfur requirements.

C-261-3-13:

There are no emission factor changes. Therefore, EF2 = EF1.

C-261-4-11:

There are no emission factor changes. Therefore, EF2 = EF1.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The pre-project potential emissions were taken from project C-1095070 and are shown below:

C-261-2-23:

Pre-Project Potential to Emit (PE1) - Final Stack			
	Hourly PE (lb/hr)	Daily PE (lb/day)	Annual PE (lb/year)
NO _x	55.9	1,341.6	489,684
SO _x	24.3	1,296.0	217,204
PM ₁₀	22.8	547.2	199,728
CO	44.7	1,072.8	391,572
HC	18	432.0	157,680
VOC	18	432.0	157,680

C-261-3-12:

The C-11 production line (North and South wet ESPs) is subject to a separate combined emission limit for PM₁₀: The combined PM limit for the North and South wet ESPs is 11.8 lb PM/hr.

Although this operation is a source of combustion contaminants, there are no other emission limits listed on the permit. However, emissions from natural gas combustion were estimated in project C-1095070 and are shown below.

Pre-Project Potential to Emit (PE1)		
	Daily PE (lb/day)	Annual PE (lb/year)
NO _x	114.8	48,392
SO _x	4.1	1,380
PM ₁₀	11.8	4,307
CO	111.7	40,646
VOC	7.3	2,661

C-261-4-10:

The C-12 production line (wet ESP) is subject to an emission limit for PM₁₀: The PM limit for the wet ESP is 4.5 lb PM/hr.

Although this operation is a source of combustion contaminants, there are no other emission limits listed on the permit. However, emissions from natural gas combustion were estimated in project C-1095070 and are shown below.

Pre-Project Potential to Emit (PE1)		
	Daily PE (lb/day)	Annual PE (lb/year)
NO _x	65.8	24,056
SO _x	2.1	686
PM ₁₀	4.5	1,643
CO	55.6	20,205
VOC	3.6	1,323

2. Post Project Potential to Emit (PE2)

C-261-2-24:

The emissions from the furnace are calculated below:

PE2 = (emission factor) * (throughput rate) * (metric ton conversion)

PE2_{NOx} = 55.9 lb NO_x/hr (current permit limit)
 = 3.0 lb/ton * 325 MT/day * 1.1023 tons/MT = 1,074.7 lb NO_x/day
 = 3.0 lb/ton * 118,625 MT/yr * 1.1023 tons/MT = 392,281 lb NO_x/year

PE2_{SOx} = 54.0 lb SO_x/hr (current permit limit)
 = 0.90 lb/ton * 325 MT/day * 1.1023 tons/MT = 322.4 lb SO_x/day
 = 0.90 lb/ton * 118,625 MT/yr * 1.1023 tons/MT = 117,684 lb SO_x/year

PE2_{PM} = 0.5 lb/ton * 325 MT/day * 1.1023 tons/MT ÷ 24 hr/day = 7.5 lb PM/hr
 = 0.5 lb/ton * 325 MT/day * 1.1023 tons/MT = 179.1 lb PM/day
 = 0.5 lb/ton * 118,625 MT/yr * 1.1023 tons/MT = 65,380 lb PM/year

PE2_{PM10} = 0.5 lb/ton * 325 MT/day * 1.1023 tons/MT ÷ 24 hr/day = 7.5 lb PM₁₀/hr
 = 0.5 lb/ton * 325 MT/day * 1.1023 tons/MT = 179.1 lb PM₁₀/day
 = 0.5 lb/ton * 118,625 MT/yr * 1.1023 tons/MT = 65,380 lb PM₁₀/year

PE2_{CO} = 1.0 lb/ton * 325 MT/day * 1.1023 tons/MT ÷ 24 hr/day = 14.93 lb CO/hr
 = 1.0 lb/ton * 325 MT/day * 1.1023 tons/MT = 358.3 lb CO/day
 = 1.0 lb/ton * 118,625 MT/yr * 1.1023 tons/MT = 130,762 lb CO/year

$$\begin{aligned}
 PE2_{VOC} &= 0.25 \text{ lb/ton} * 325 \text{ MT/day} * 1.1023 \text{ tons/MT} \div 24 \text{ hr/day} = 3.73 \text{ lb VOC/hr} \\
 &= 0.25 \text{ lb/ton} * 325 \text{ MT/day} * 1.1023 \text{ tons/MT} = 89.6 \text{ lb VOC/day} \\
 &= 0.25 \text{ lb/ton} * 118,625 \text{ MT/yr} * 1.1023 \text{ tons/MT} = 32,690 \text{ lb VOC/year}
 \end{aligned}$$

The post-project Potential to Emit for the Furnace is summarized below:

Post-Project Potential to Emit (PE2) - Furnace			
	Hourly PE (lb/hr)	Daily PE (lb/day)	Annual PE (lb/year)
NO _x *	55.9	1,074.7	392,281
SO _x *	54.0	322.4	117,684
PM	7.5	179.1	65,380
PM ₁₀	7.5	179.1	65,380
CO	14.93	358.3	130,762
HC	3.73	89.6	32,690
VOC	3.73	89.6	32,690

*NO_x and SO_x furnace PE2 calculated based on Final Stack emission limits

The final stack potential emissions will be determined by comparing all the potential emissions from the different types of fuels and selecting the one with the highest potential emissions. The final stack emissions are shown below:

C-261-2-24 (Final Stack)					
	Natural Gas		Fuel Oil		Propane/LPG
	Hourly Emissions (lb/hr)	Daily Emissions (lb/day)	Hourly Emissions (lb/hr)	Daily Emissions (lb/day)	Daily Emissions (lb/day)
NO _x	55.9	1,074.7	40	960.0	1,074.7
SO _x	24.3	322.4	24.3	322.4	322.4
PM	22.8	547.2	22.8	547.2	547.2
PM ₁₀	22.8	547.2	22.8	547.2	547.2
CO	44.7	1,072.8	44.7	1,072.8	1,072.8
HC	18	432.0	18	432.0	432.0
VOC	18	432.0	18	432.0	432.0

It should be noted that the hourly and daily limits listed above include emissions from three permit units: C-261-2, C-261-3, and C-261-4 (the furnace, Line C-11 and Line C-12, respectively).

The post-project Potential to Emit for the Final Stack is listed below:

Post-Project Potential to Emit (PE2) - Final Stack			
	Hourly PE (lb/hr)	Daily PE (lb/day)	Annual PE (lb/year)
NO _x	55.9	1,074.7	392,281
SO _x	54.0	322.4	117,684
PM ₁₀	22.8	547.2	199,728
CO	44.7	1,072.8	391,572
HC	18	432.0	157,680
VOC	18	432.0	157,680

C-261-3-13:

The only changes in emissions from this unit will be the proposed limits on the final stack emissions. The changes to the final stack emissions are addressed above, therefore no additional calculations will be performed.

C-261-4-11:

The only changes in emissions from this unit will be the proposed limits on the final stack emissions. The changes to the final stack emissions are addressed above, therefore no additional calculations will be performed.

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

Pre-Project Stationary Source Potential to Emit [SSPE1] (lb/year)					
Permit	NO _x	SO _x	PM ₁₀	CO	VOC
C-261-1-6	0	0	959	0	0
C-261-2-25	489,684	217,204	199,728	391,572	157,680
C-261-3-12					
C-261-4-10					
C-261-27-4	5,518	365	392	1,189	447
C-261-28-4	5,518	365	392	1,189	447
C-261-29-3	775	51	55	167	63
C-261-30-2	1,128	75	80	243	91
C-261-31-2	1,128	75	80	243	91
Pre-Project SSPE (SSPE1)	503,751	218,135	201,686	394,603	158,819

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

Post-Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
Permit	NO _x	SO _x	PM ₁₀	CO	VOC
C-261-1-6	0	0	959	0	0
C-261-2-24 (project)	392,281	117,684	199,728	391,572	157,680
C-261-3-13 (project)					
C-261-4-11 (project)					
C-261-27-4	5,518	365	392	1,189	447
C-261-28-4	5,518	365	392	1,189	447
C-261-29-3	775	51	55	167	63
C-261-30-2	1,128	75	80	243	91
C-261-31-2	1,128	75	80	243	91
Post-Project SSPE (SSPE2)	406,348	118,615	201,686	394,603	158,819

5. Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. However, for the purposes of determining major source status, the SSPE2 shall not include the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.”

Major Source Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	503,751	218,135	201,686	394,603	158,819
SSPE2	406,348	118,615	201,686	394,603	158,819
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	Yes	Yes	Yes	Yes	Yes

The source is an existing Major Source for NO_x, SO_x, PM₁₀, CO and VOC and will remain a Major Source for these pollutants.

6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, Section 3.12, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

C-261-2-24:

The furnace in this project currently meets achieved-in-practice BACT (BACT Guideline 1.5.1) during the five years immediately prior to the submission of the complete application. Therefore, the furnace in this project is a Clean Emissions Unit and Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

C-261-3-13:

The forehearth in this project currently meets achieved-in-practice BACT (BACT Guideline 1.5.7) during the five years immediately prior to the submission of the complete application. Therefore, the forehearth in this project is a Clean Emissions Unit and Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

C-261-4-10:

The forehearth in this project currently meets achieved-in-practice BACT (BACT Guideline 1.5.1) during the five years immediately prior to the submission of the complete application. Therefore, the forehearth in this project is a Clean Emissions Unit and Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

The only changes the facility is proposing in this project is the lowering of the NO_x and SO_x emissions limits, and the addition of SO_x and PM₁₀ parametric monitoring requirements to meet the requirements in District Rule 4354. The facility currently meets the lower emission limits in District Rule 4354; therefore no physical modifications will be performed. The facility will not be performing any physical change or change in the method of operation in this project; therefore this project is not considered a modification per 40 CFR Part 51.165 and no further evaluation is necessary.

8. Federal Major Modification

District Rule 2201, Section 3.17 states that major modifications are also federal major modifications, unless they qualify for either a "Less-Than-Significant Emissions Increase" exclusion or a "Plantwide Applicability Limit" (PAL) exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a federal major modification for that pollutant.

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxxv)(A) through (D) shall be used.
- If the project is determined not to be a federal major modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
- Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

Significant Threshold (lb/year)	
Pollutant	Threshold (lb/year)
VOC	0
NO _x	0
PM ₁₀	30,000
SO _x	80,000

The Net Emissions Increase (NEI) for purposes of determination of a “Less-Than-Significant Emissions Increase” exclusion will be calculated below to determine if this project qualifies for such an exclusion.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission increases are counted. Emission decreases may not cancel out the increases for this determination.

Step 1

For existing emissions units, the increase in emissions is calculated as follows.

$$\text{Emission Increase} = \text{PAE} - \text{BAE} - \text{UBC}$$

Where: PAE = Projected Actual Emissions, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period (5 years for electric utility steam generating units). The BAE must be adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

UBC: Since this project does not result in an increase in design capacity or potential to emit, and it does not impact the ability of the emission unit to operate at a higher utilization rate, the UBC is the portion of PAE that the emission units could have accommodated during the baseline period.

$$\text{Net emission Increase (NEI)} = \text{PAE} - \text{BAE} - \text{UBC} = 0$$

The NEI for this project will be less than the federal Major Modification threshold for NO_x, SO_x, PM₁₀, and VOC. Therefore, this project does qualify for a “Less-Than-Significant Emissions Increase” exclusion and is thus determined not to be a federal Major Modification for NO_x, SO_x, PM₁₀, or VOC.

VIII. Compliance

Rule 1080 Stack Monitoring

This rule grants the APCO the authority to request the installation, use maintenance, and inspection of continuous monitoring equipment. The general, source and pollutant specific requirements for continuous monitoring equipment are defined. This rule also specifies the performance standards for the equipment and administrative recordkeeping, reporting, and violation and equipment breakdown notification requirements. The following conditions assure compliance with the requirements of this rule.

Unit C-261-2-24:

- The facility shall maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080]
- Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080]
- Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080]
- {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1]
- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the furnace oxygen/fuel ratio. [District Rules 1080 and 4354]
- Results of the Continuous Parametric Monitoring System shall be logged in one hour intervals for furnace oxygen/fuel ratio. [District Rule 1080]
- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the caustic soda injection system's liquid flow rate and liquid specific gravity. [District Rules 1080 and 4354]
- Results of the Continuous Parametric Monitoring System monitoring the liquid flow rate and liquid specific gravity of the caustic soda injection system shall be recorded every three hours. [District Rule 1080]

- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the voltage of the dry electrostatic precipitator. [District Rules 1080 and 4354]
- Results of the Continuous Parametric Monitoring System monitoring the dry electrostatic precipitator voltage shall be recorded at least four times per hour. [District Rule 1080]
- The owner or operator shall submit a written report of furnace oxygen/fuel ratio Continuous Parametric Monitoring System operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess oxygen/fuel ratio, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the furnace oxygen/fuel ratio test period and used to determine compliance with the furnace oxygen/fuel ratio standard; Applicable time and date of each period during which the Continuous Parametric Monitoring System was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080]
- The owner or operator shall submit a written report of the caustic soda injection system Continuous Parametric Monitoring System operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess of the caustic soda injection rate or specific gravity, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the caustic soda injection system flow rate and specific gravity test period and used to determine compliance with the caustic soda injection system flow rate and specific gravity standard; Applicable time and date of each period during which the Continuous Parametric Monitoring System was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080]
- The owner or operator shall submit a written report of the dry electrostatic precipitator Continuous Parametric Monitoring System operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess of the dry electrostatic precipitator, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the dry electrostatic precipitator test period and used to determine compliance with the dry electrostatic precipitator standard; Applicable time and date of each period during which the Continuous Parametric Monitoring System was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080]

Rule 1081 Source Sampling

The purpose of this rule is to ensure that any source operation which emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination. The following conditions assure compliance with the requirements of this rule.

Unit C-261-2-24:

- The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02]
- The results of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02]
- The outlets of the dry ESP and the final stack shall be so fitted as to permit performance of tests for pollutants (per 40 CFR 60, Appendix A) using portable equipment in a manner as approved by the EPA, CARB and the District. [District Rule 1081]

Unit C-216-3-13:

- The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02]
- The result of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02]

Unit C-216-4-11:

- The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02]
- The result of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02]
- The outlet of the wet ESP and the final stack shall be so fitted as to permit performance of tests for pollutants (per 40 CFR 60, Appendix A) using portable equipment in a manner as approved by the EPA, CARB and the District. [District Rule 1081; PSD ATC SJ 80-02]

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

However, BACT shall not be required for the following:

4.2.3 For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of District, State or Federal air pollution control laws, regulations, or orders, as approved by the APCO, shall be exempt from Best Available Control Technology for all air pollutants, provided all of the following conditions are met:

- 4.2.3.1 There shall be no increase in the physical or operational design of the existing facility, except for those changes to the design needed for the installation or modification of the emission control technique itself;
- 4.2.3.2 There shall be no increase in the permitted rating or permitted operating schedule of the permitted unit;
- 4.2.3.3 There shall be no increase in emissions from the stationary source that will cause or contribute to any violation of a National Ambient Air Quality Standard, Prevention of Significant Deterioration increment, or Air Quality Related Value in Class I areas; and
- 4.2.3.4 The project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NO_x, or 25 tons per year of VOC, or 15 tons per year of SO_x, or 15 tons per year of PM₁₀, or 50 tons per year of CO.
- 4.2.3.5 The project shall not constitute a federal major modification.

Since each of the above-listed criteria are met, BACT is not triggered for any pollutant.

B. Offsets

1. Offset Applicability

Emission offsets shall not be required for the following:

- 4.6.8 For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of District, State or Federal air pollution control laws, regulations, or orders, as approved by the APCO, shall be exempt from offset requirements for all air pollutants provided all of the following conditions are met:
- 4.6.8.1 There shall be no increase in the physical or operational design of the existing facility, except for those changes to the design needed for the installation or modification of the emission control technique itself;
 - 4.6.8.2 There shall be no increase in the permitted rating or permitted operating schedule of the permitted unit;
 - 4.6.8.3 There shall be no increase in emissions from the stationary source that will cause or contribute to any violation of a National Ambient Air Quality Standard, Prevention of Significant Deterioration increment, or Air Quality Related Value in Class I areas; and
 - 4.6.8.4 The project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NO_x, or 25 tons per year of VOC, or 15 tons per year of SO_x, or 15 tons per year of PM-10, or 50 tons per year of CO.

Since the above-listed criteria are met, offsets are not triggered for any pollutant.

2. Quantity of Offsets Required

As seen above, the project meets the exemption requirements of section 4.6.8 of District Rule 2201; therefore offset calculations are not necessary and offsets are not required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in VII.C.7, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project. Therefore public noticing is not required for this project for PE > 100 lb/day.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	503,751	406,348	20,000 lb/year	No
SO _x	218,135	118,615	54,750 lb/year	No
PM ₁₀	201,686	201,686	29,200 lb/year	No
CO	394,603	394,603	200,000 lb/year	No
VOC	158,819	158,819	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	406,348	503,751	-97,403	20,000 lb/year	No
SO _x	118,615	218,135	-99,520	20,000 lb/year	No
PM ₁₀	201,686	201,686	0	20,000 lb/year	No
CO	394,603	394,603	0	20,000 lb/year	No
VOC	158,819	158,819	0	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

C-261-2-25:

- The rate of fuel oil consumption shall not exceed 570 gal/hr nor 5,000,000 gal/year. [District Rule 2201]
- All natural gas used by the facility shall be PUC regulated. [District Rule 2201; PSD ATC SJ 80-02; Madera County Rule 404]
- Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [District Rule 2201; PSD ATC SJ 80-02]

- Dry Electrostatic Precipitator (ESP) outlet emissions shall not exceed 8.4 lbs PM/hr and 8.4 lbs PM₁₀/hr. [District Rule 2201; District Rule 4202; PSD ATC SJ 80-02]
- When the furnace is heated with LPG/propane, final stack emissions shall not exceed 547.2 lb PM/day, 547.2 lb PM₁₀/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,074.7 lb NO_x/day, 322.4 lb SO_x/day, or 1,072.8 lb CO/day. [District Rule 2201]
- When the furnace is heated with natural gas, final stack emissions shall not exceed 22.8 lb PM/hr, 22.8 lb PM₁₀/hr, 18.0 lb HC/hr, 18.0 lb VOC/hr, 55.9 lb NO_x/hr, 24.3 lb SO_x/hr, nor 44.7 lb CO/hr. [District Rule 2201; District Rule 4354; District Rule 4202; PSD ATC SJ 80-02]
- When the furnace is heated with fuel oil, final stack emissions shall not exceed 22.8 lb PM/hr, 22.8 lb PM₁₀/hr, 18.0 lb HC/hr, 18.0 lb VOC/hr, 40.0 lb NO_x/hr, 54.0 lb SO_x/hr, nor 44.7 lb CO/hr. [District Rule 2201; District Rule 4354; District Rule 4202; PSD ATC SJ 80-02]
- During any day when nitrate is used in the furnace, final stack emissions shall not exceed 3.0 lb-NO_x/ton of glass pulled on a block 24-hour average. During any day when nitrate is not used in the furnace, final stack emissions shall not exceed 1.45 lb-NO_x/ton of glass pulled on a block 24-hour average. These emission limits shall not apply during periods of startup, shutdown, or idling, provided the facility complies with the requirements of Rule 4354, Sections 5.5, 5.6, 5.7, and 6.7. [District Rules 2201 and 4354]
- Emissions from the glass melting furnace shall not exceed any of the emission limits of District Rule 4354, as follows: 0.90 lb SO_x/short ton or glass pulled on a rolling 24 hour average, 0.50 lb-PM₁₀/short ton pulled on a block 24-hour average, 1.0 lb CO/short ton of glass pulled as averaged over a three hour period, or 0.25 lb VOC/short ton of glass pulled as averaged over a three hour period. These emission limits shall not apply during periods of startup, shutdown, or idling, provided the facility complies with the requirements of Rule 4354, Sections 5.5, 5.6, 5.7, and 6.7. [District Rule 4354]

C-261-3-13:

- When fired on propane, the total stack emissions, which result from combining the C-11 dry ESP (PTO C-261-2), C-11 wet ESP and C-12 wet ESP (PTO C-261-4) emissions, shall not exceed 547.2 lb PM/day, 547.2 lb PM₁₀/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,074.7 lb NO_x/day, 322.4 lb SO_x/day, or 1,072.8 lb CO/day. [District Rule 2201]
- The total stack emissions, which result from combining the C-1 dry ESP (PTO C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 22.8 lb PM/hr or 22.8 lb PM₁₀/hr. [District Rule 2201; PSD ATC SJ 80-02]

C-261-4-11:

- The C-12 wet ESP outlet emissions shall not exceed 4.5 lbs PM/hr nor 108 lb PM/day. [District Rule 2201; District Rule 4202; PSD ATC SJ 80-02]
- Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [District Rule 2201; PSD ATC SJ 80-02]
- When fired on propane, the total stack emissions, which result from combining the C-11 dry ESP (PTO C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 547.2 lb PM/day, 547.2 lb PM₁₀/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,074.7 lb NO_x/day, 322.4 lb SO_x/day, or 1,072.8 lb CO/day. [District Rule 2201]
- The total stack emissions, which result from combining the C-1 dry ESP (PTO C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 22.8 lb PM/hr or 22.8 lb PM₁₀/hr. [District Rule 2201; PSD ATC SJ 80-02]

E. Compliance Assurance

1. Source Testing

The current permit requires source testing for NO_x, CO, and VOC from the Final Stack on an annual basis. In addition, testing for CO and VOC is required on an annual basis, at the dry ESP. Also, testing of PM is required on an annual basis for the Final Stack, the dry ESP, and wet ESP. These requirements will remain in the permit.

C-261-2-25:

- Source tests shall be performed while operating at design capacity. To determine worst case emissions, the tests shall be performed while firing on natural gas, and separately while firing 0.0015% sulfur backup fuel oil. With prior EPA and District approval, source testing may be performed as otherwise provided. [District Rule 2201; PSD ATC SJ 80-02]
- Source testing for NO_x from the final stack shall be performed under normal operating conditions at the time of the test. Testing shall be performed in the presence of nitrate additive if daily records indicate that nitrate is routinely used in the furnace during the period immediately prior to the test. If nitrate use is discontinued by the facility during normal operations, NO_x source testing shall be performed without nitrate additive in the furnace. [District Rule 2201]
- Source tests for PM shall be performed at the outlet of the dry ESP, the outlet of the three wet ESP's and the final stack. The source tests for NO_x, SO_x, and VOC shall be performed at the final stack. [District Rule 2201; District Rule 4202; and Rule 2520, 9.4.2; PSD ATC SJ 80-02]

- Source testing to measure NO_x, SO_x, PM, CO, and VOC emissions from this unit shall be conducted while firing on fuel oil when this unit is fired on fuel oil during the previous 12 months from the date of the proposed source test. After demonstrating compliance on two consecutive annual source tests when the unit is fired on fuel oil, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emissions limits, the source testing frequency shall revert to at least once every 12 months. [District Rule 2201]

C-261-3-13:

Source testing of emissions from this unit is required by PSD permit conditions; therefore these conditions will not be addressed in this section.

C-261-4-11:

Source testing of emissions from this unit is required by PSD permit conditions; therefore these conditions will not be addressed in this section.

2. Monitoring

The Final Stack is already equipped with CEMS for NO_x and opacity. The CEMs must comply with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13, 40 CFR Part 60 Appendix B (Performance Specifications) and Appendix F (Quality Assurance Procedures), and applicable sections of Rule 1080 (Stack Monitoring). No additional monitoring is required.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201.

The permittee will be required to maintain the following records: an operating log which includes type and quantity of fuel used and daily quantity of glass pulled. All records shall be maintained on the premises for a period of at least five years and shall be made available for District inspection upon request. No additional recordkeeping is required.

C-261-2-25:

- A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA or CARB. [District Rule 2201; PSD ATC SJ 80-02]
- A record of each fuel consumption shall be maintained, kept onsite for at least five years and made available for inspection by EPA, CARB and the District upon request. [District 2520, 9.4.2]

- Operator shall maintain daily records of the total hours of operation, type and quantity of fuel used in the furnace, the quantity of glass pulled from the furnace, NOx emission rate in lb/ton of glass pulled. Operator shall maintain records of source tests and operating parameters established during initial source test, maintenance and repair, malfunction, and idling, start-up and shutdown. [District Rule 4354]
- The operator shall retain the records specified in this permit for a period of five years, make them available on site during normal business hours to the APCO, ARB, or EPA, and submit them to the APCO, ARB, or EPA upon request. [District Rule 4354]
- The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63, Subpart NNN]
- The owner or operator shall maintain records of the following information: DESP parameter value(s) used to monitor DESP performance, including any period when the value(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected. [40 CFR 63, Subpart NNN]

C-261-3-13:

- A permanent record of daily production shall be maintained and shall be available for inspection by EPA, CARB and the District. [District Rule 2520, 9.4.2; PSD ATC SJ 80-02]
- The owner or operator must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder. [40 CFR 63, Subpart NNN]
- The owner or operator must monitor and record the formulation of each batch of binder used. [40 CFR 63, Subpart NNN]
- The owner or operator must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured. [40 CFR 63, Subpart NNN]

- The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63, Subpart NNN]
- The owner or operator shall maintain records of the following information: the formulation of each binder batch and the LOI and density for each product manufactured on a rotary spin manufacturing line or flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation; Process parameter level(s) for RS and FA manufacturing lines that use process modifications to comply with the emission limits, including any period when the parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected. [40 CFR 63, Subpart NNN]

C-261-4-11:

- A permanent record of daily production shall be maintained and shall be available for inspection by EPA, CARB and the District. [District Rule 2520, 9.4.2; PSD ATC SJ 80-02]

4. Reporting

The permittee is required to submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, which will include the following: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted, applicable time and date of each period during which the CEM was inoperative (except for zero and span checks), and the nature of system repairs and adjustments. A negative declaration shall be submitted when no excess emissions occurred.

5. Other Operational Conditions

The following conditions contain specific operational requirements the facility is required to follow:

C-261-2-24:

- CertainTeed shall continuously operate and maintain the caustic soda injection system for the pretreatment of the glass furnace gas stream upstream of the dry ESP. [District Rule 2201; PSD ATC SJ 80-02]

- Both the caustic soda injection system (scrubber) and the dry electrostatic precipitator shall be functioning as air pollution abatement devices whenever the glass melting furnace is in operation. [District Rule 2201; PSD ATC SJ 80-02]

C-261-4-11:

- CertainTeed shall continuously operate and maintain the wet cyclonic scrubbers for the pretreatment of the gas stream upstream of the C-12 wet ESP. [District Rule 2201; PSD ATC SJ 80-02]
- Both the cyclonic scrubbers and the C-12 wet ESP shall be functioning as air pollution abatement devices whenever there is glass production on the C-12 Line. [District Rule 2201; PSD ATC SJ 80-02]
- Baghouse shall be functioning as air pollutant abatement device whenever there is glass production on the C-12 Line. [District Rule 2201; PSD ATC SJ 80-02]

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC's upon submittal of the Title V administrative amendment application.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR 60 Subpart CC – Standards of Performance for Glass Manufacturing Plants

This subpart addresses standards for PM emissions from wool fiberglass furnaces. The PM standard in this subpart limits PM emissions to 0.25 g/kg (equivalent to 0.5 lb/ton)¹ glass produced when firing on gaseous fuel, and 0.325 g/kg of glass produced when firing on other fuels. These standards are subsumed by the PM limit derived from 40 CFR 63 Subpart NNN, requiring that PM emissions must not exceed 0.25 kg/Mg (equivalent to 0.25 g/kg or 0.5 lb/ton) of glass produced regardless of the type of fuel used. Permit conditions will be included to ensure compliance with this subpart, as discussed in section 40 CFR Part 63 Subpart NNN below.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

40 CFR 61 Subpart N – National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants

This subpart applies to furnaces that use commercial arsenic as a raw material. The facility does not use commercial arsenic as a raw material; therefore, this rule will not apply to the furnace.

40 CFR 63 Subpart NNN - National Emission Standard for Hazardous Air Pollutants from Wool Fiberglass Manufacturing

40 CFR Part 63 Subpart NNN applies to a wool fiberglass manufacturing facility that is a major source or is located at a facility that is a major source. The requirements of this subpart apply to emissions of hazardous air pollutants (HAPs), as measured according to the methods and procedures in this subpart, emitted from the following new and existing sources at a wool fiberglass manufacturing facility subject to this subpart:

- (1) Each new and existing glass-melting furnace located at a wool fiberglass manufacturing facility;
- (2) Each new and existing rotary spin wool fiberglass manufacturing line producing a bonded wool fiberglass building insulation product; and

¹ $EF_{lb/ton} = 0.25 \text{ g/kg} \div 453.6 \text{ g/lb} * 907.2 \text{ kg/ton} = 0.5 \text{ lb/ton}$

- (3) Each new and existing flame attenuation wool fiberglass manufacturing line producing a bonded pipe product and each new flame attenuation wool fiberglass manufacturing line producing a bonded heavy-density product.

CertainTeed has an existing glass-melting furnace (C-261-2) and an existing rotary spin wool fiberglass manufacturing line producing a bonded fiberglass building insulation product (C-11 production line, C-261-3). It should be noted that the C-12 production line (C-261-4) does not produce a “bonded” wool fiberglass building insulation product; therefore, the requirements of this subpart are not applicable to this production line.

§63.1382: Emission Standards

§63.1382(a)(1), emission limits for glass-melting furnaces, states that on and after the date the initial performance test is completed or required to be completed under §63.7 of this part, whichever date is earlier, the owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled for each new or existing glass-melting furnace.

Therefore, the following condition will be listed on permit -2-24 to ensure compliance:

- The owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of filterable particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled for each new or existing glass-melting furnace. [40 CFR 63, Subpart NNN]

§63.1382(a)(2), emission limits for rotary spin manufacturing lines, states that on and after the date the initial performance test is completed or required to be completed under §63.7 of this part, whichever date is earlier, the owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of:

- (i) 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled for each existing rotary spin manufacturing line; and
- (ii) 0.4 kg of formaldehyde per megagram (0.8 lb of formaldehyde per ton) of glass pulled for each new rotary spin manufacturing line.

Therefore, the following condition will be listed on permit -3-13 to ensure compliance:

- The owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled for each existing rotary spin manufacturing line. [40 CFR 63, Subpart NNN]

§63.1382(a)(3) applies to new and existing flame attenuating manufacturing lines. As discussed above, this facility does not have any existing flame attenuating manufacturing lines and this project does not propose to install a flame attenuating manufacturing line, therefore the requirements of this section do not apply.

§63.1382(b)(1)(i) and §63.1382(b)(1)(ii) applies to facilities equipped with a bag leak detection system. CertainTeed is not equipped with a bag leak detection system; therefore the requirements of these sections do not apply.

§63.1382(b)(2)(i), §63.1382(b)(2)(ii), and §63.1382(b)(2)(iii) applies to facilities equipped with electrostatic precipitators (ESP). CertainTeed's glass melting furnace is equipped with a dry electrostatic precipitator (DESP); therefore, the requirements of these sections apply to permit unit C-261-2.

§63.1382(b)(2)(i) requires that the owner or operator must initiate corrective action within 1 hour when any 3-hour block average of the monitored electrostatic precipitator (ESP) parameter is outside the limit(s) established during the performance test as specified in §63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

§63.1382(b)(2)(ii) requires that the owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64 subpart D when the monitored ESP parameter is outside the limit(s) established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

§63.1382(b)(2)(iii) requires that the owner or operator must operate the ESP such that the monitored ESP parameter is not outside the limit(s) established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

Therefore, the following conditions will be listed on permit -2-24 to ensure compliance:

- The owner or operator must initiate corrective action within 1 hour when any 3-hour block average of the monitored dry electrostatic precipitator (DESP) parameter is outside the limit(s) established during the performance test as specified in §63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN]
- The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64 subpart D when the monitored DESP parameter is outside the limit(s) established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN]
- The owner or operator must operate the DESP such that the monitored DESP parameter is not outside the limit(s) established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN]

§63.1382(b)(3)(i), §63.1382(b)(3)(ii), and §63.1382(b)(3)(iii) applies to cold top electric furnaces. CertainTeed does not operate a cold top electric furnace; therefore the requirements of these sections do not apply.

§63.1382(b)(4)(i), §63.1382(b)(4)(ii), and §63.1382(b)(4)(iii) applies to glass-melting furnaces, which uses no add-on controls and which is not a cold top electric furnace. CertainTeed utilizes add on controls for the glass-melting furnace; therefore the requirements of these sections do not apply.

§63.1382(b)(5)(i), §63.1382(b)(5)(ii), and §63.1382(b)(5)(iii) applies to glass-melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped. CertainTeed's glass melting furnace and the C-11 and C-12 production lines are equipped with continuous glass pull rate monitors; therefore the requirements of these sections applies to the furnace and the C-11 and C-12 production lines.

§63.1382(b)(5)(i) requires that the owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in §63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

§63.1382(b)(5)(ii) requires that the owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

§63.1382(b)(5)(iii) requires that the owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

Therefore, the following conditions will be listed on permits -2-24 and -3-13 to ensure compliance:

- The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in §63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN]

- The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN]
- The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN]

§63.1382(b)(6) applies to incinerators used to control formaldehyde emissions from the forming or curing operations. CertainTeed does not utilize incinerators to control formaldehyde emissions; therefore the requirements of this section do not apply.

§63.1382(b)(7)(i), §63.1382(b)(7)(ii), and §63.1382(b)(7)(iii) applies to wet scrubbing control devices. CertainTeed does not utilize wet scrubbers as control devices in their operation; therefore the requirements of these sections do not apply.

§63.1382(b)(8)(i) requires the owner or operator must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in § 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

§63.1382(b)(8)(ii) requires the owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the process parameter(s) is outside the limit(s) established during the performance test as specified in § 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

§63.1382(b)(8)(iii) requires the owner or operator must operate the process modifications such that the monitored process parameter(s) is not outside the limit(s) established during the performance test as specified in § 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

Therefore, the following conditions will be listed on permit -3-13 to ensure compliance with these three sections:

- The owner or operator must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in Section 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN]

- The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the process parameter(s) is outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN]
- The owner or operator must operate the process modifications such that the monitored process parameter(s) is not outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN]

§63.1382(b)(9) requires the owner or operator to use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in § 63.1384.

§63.1382(b)(10) requires the owner or operator to use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in § 63.1384. For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation.

Therefore, the following conditions will be listed on permit -3-13 to ensure compliance with these two sections:

- The owner or operator must use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in Section 63.1384. [40 CFR 63, Subpart NNN]
- The owner or operator must use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in Section 63.1384. For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation. [40 CFR 63, Subpart NNN]

§63.1383: Monitoring Requirements

§63.1383(a) states that the owner or operator of each wool fiberglass manufacturing facility must prepare for each glass-melting furnace, rotary spin manufacturing line, and flame attenuation manufacturing line subject to the provisions of this subpart, a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information:

- (1) Procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in §63.1382;

- (2) Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers' instructions; and
- (3) Corrective actions to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests.

As discussed above, CertainTeed has a glass-melting furnace; therefore, the requirements in these sections apply. Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- The owner or operator of each wool fiberglass manufacturing facility must prepare for each glass-melting furnace and rotary spin manufacturing line subject to the provisions of this subpart, a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information: Procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in §63.1382; Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers' instructions; and Corrective actions to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests. [40 CFR 63, Subpart NNN]

§63.1383(b)(1)(i), §63.1383(b)(1)(ii), §63.1383(b)(1)(iii), §63.1383(b)(1)(iv), §63.1383(b)(1)(v), §63.1383(b)(1)(vi), and §63.1383(b)(1)(vii) applies to glass-melting furnaces where a baghouse is used to control PM emissions. CertainTeed does not utilize a baghouse to control PM emissions from the glass-melting furnace; therefore the requirements of these sections do not apply.

§63.1383(b)(2)(i), §63.1383(b)(2)(ii), §63.1383(b)(2)(iii), §63.1383(b)(2)(iv), §63.1383(b)(2)(v), and §63.1383(b)(2)(vi) applies to facilities equipped with a bag leak detection system. CertainTeed is not equipped with a bag leak detection system; therefore the requirements of these sections do not apply.

§63.1383(c)(1) applies to glass-melting furnaces where an ESP is used to control PM emissions and requires that the owner or operator must monitor the ESP according to the procedures in the operations, maintenance, and monitoring plan. CertainTeed's glass melting furnace is equipped with a dry electrostatic precipitator (DESP); therefore, the facility will be required to monitor the ESP according to the procedures in the operations, maintenance, and monitoring plan.

§63.1383(c)(2) also requires that the operations, maintenance, and monitoring plan for the ESP must contain the following information:

- (i) The ESP operating parameter(s), such as secondary voltage of each electrical field, to be monitored and the minimum and/or maximum value(s) that will be used to identify any operational problems;

- (ii) A schedule for monitoring the ESP operating parameter(s);
- (iii) Recordkeeping procedures, consistent with the recordkeeping requirements of §63.1386, to show that the ESP operating parameter(s) is within the limit(s) established during the performance test; and
- (iv) Procedures for the proper operation and maintenance of the ESP.

Therefore, the following condition will be listed on permit -2-24 to ensure compliance:

- The owner or operator must monitor the DESP according to the procedures in the operations, maintenance, and monitoring plan. The operations, maintenance, and monitoring plan for the ESP must contain the following information: The DESP operating parameter(s), such as secondary voltage of each electrical field, to be monitored and the minimum and/or maximum value(s) that will be used to identify any operational problems; A schedule for monitoring the DESP operating parameter(s); Recordkeeping procedures, consistent with the recordkeeping requirements of §63.1386, to show that the DESP operating parameter(s) is within the limit(s) established during the performance test; and Procedures for the proper operation and maintenance of the DESP. [40 CFR 63, Subpart NNN]

§63.1383(d) applies to cold top electric furnaces that do not use any add-on controls for PM emissions. CertainTeed does not operate a cold top electric furnace; therefore the requirements of this section do not apply.

§63.1383(e)(1), §63.1383(e)(2)(i), §63.1383(e)(2)(ii), §63.1383(e)(2)(iii), and §63.1383(e)(2)(iv) applies to glass-melting furnaces, which uses no add-on controls for PM emissions. CertainTeed utilizes add on controls for PM emissions for the glass-melting furnace; therefore the requirements of these sections do not apply.

§63.1383(f)(1) applies to existing glass melting furnaces. CertainTeed's glass melting furnace is an existing furnace; therefore, the requirements of this section apply to permit unit C-261-2.

§63.1383(f)(1) requires that the owner or operator of an existing glass-melting furnace equipped with continuous glass pull rate monitors must monitor and record the glass pull rate on an hourly basis. For glass-melting furnaces that are not equipped with continuous glass pull rate monitors, the glass pull rate must be monitored and recorded once per day.

Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- The owner or operator of an existing glass-melting furnace equipped with continuous glass pull rate monitors must monitor and record the glass pull rate on an hourly basis. For glass-melting furnaces that are not equipped with continuous glass pull rate monitors, the glass pull rate must be monitored and recorded once per day. [40 CFR 63, Subpart NNN]

§63.1383(f)(2) applies to new glass melting furnaces. CertainTeed's glass melting furnace is an existing furnace and this project does not include the installation of a new furnace; therefore, the requirements of this section do not apply.

§63.1383(g)(1), §63.1383(g)(2)(i), §63.1383(g)(2)(ii), §63.1383(g)(2)(iii), §63.1383(g)(2)(iv), §63.1383(g)(2)(v), §63.1383(g)(2)(vi), §63.1383(g)(2)(vii), §63.1383(g)(2)(viii), §63.1383(g)(2)(ix), §63.1383(g)(2)(x), and §63.1383(g)(2)(xi) applies to incinerators used to control formaldehyde emissions from the forming or curing operations. CertainTeed does not utilize incinerators to control formaldehyde emissions; therefore the requirements of these sections do not apply.

§63.1383(h) applies to wet scrubbing control devices. CertainTeed does not utilize wet scrubbers as control devices in their operation; therefore the requirements of this section do not apply.

§63.1383(i)(1) requires the owner or operator who uses process modifications to control formaldehyde emissions to establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored.

§63.1383(i)(2) requires the owner or operator to monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan.

§63.1383(i)(3) requires the owner or operator to include as part of their operations, maintenance, and monitoring plan the following information:

- (i) Procedures for the proper operation and maintenance of the process;
- (ii) Process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in § 63.1382. Examples of process parameters include LOI, binder solids content, and binder application rate;
- (iii) Correlation(s) between process parameter(s) to be monitored and formaldehyde emissions;
- (iv) A schedule for monitoring the process parameter(s); and
- (v) Recordkeeping procedures, consistent with the recordkeeping requirements of § 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded.

Therefore, the following conditions will be listed on permit -3-13 to ensure compliance with these three sections:

- The owner or operator who uses process modifications to control formaldehyde emissions must establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored. [40 CFR 63, Subpart NNN]
- The owner or operator must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN]

- The owner or operator must include as part of their operations, maintenance, and monitoring plan the following information: Procedures for the proper operation and maintenance of the process; Process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in Section 63.1382; Correlation(s) between process parameter(s) to be monitored and formaldehyde emissions; A schedule for monitoring the process parameter(s); and Recordkeeping procedures, consistent with the recordkeeping requirements of Section 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded. [40 CFR 63, Subpart NNN]

§63.1383(j) requires the owner or operator to monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.

§63.1383(k) requires the owner or operator to monitor and record the formulation of each batch of binder used.

§63.1383(l) requires the owner or operator to monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

Therefore, the following conditions will be listed on permit -3-13 to ensure compliance with these three sections:

- The owner or operator must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder. [40 CFR 63, Subpart NNN]
- The owner or operator must monitor and record the formulation of each batch of binder used. [40 CFR 63, Subpart NNN]
- The owner or operator must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured. [40 CFR 63, Subpart NNN]

§63.1383(m) requires that for all control device and process operating parameters measured during the initial performance tests, the owners or operators of glass-melting furnaces, rotary spin manufacturing lines or flame attenuation manufacturing lines subject to this subpart may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in §63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in this part 63, subpart A and in §63.1384.

Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- For all control device and process operating parameters measured during the initial performance tests, the owners or operators of glass-melting furnaces and rotary spin manufacturing lines subject to this subpart may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in §63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in this part 63, subpart A and in §63.1384. [40 CFR 63, Subpart NNN]

§63.1384: Performance Test Requirements

§63.1384(a) states that the owner or operator subject to the provisions of this subpart shall conduct a performance test to demonstrate compliance with the applicable emission limits in §63.1382. Compliance is demonstrated when the emission rate of the pollutant is equal to or less than each of the applicable emission limits in §63.1382. The owner or operator shall conduct the performance test according to the procedures in 40 CFR part 63, subpart A and in this section.

As discussed above, CertainTeed has a glass-melting furnace subject to emission limits in §63.1382; therefore, the requirements in this section applies.

§63.1384(a)(1) requires that all monitoring systems and equipment must be installed, operational, and calibrated prior to the performance test.

§63.1384(a)(2) requires that unless a different frequency is specified in this section, the owner or operator must monitor and record process and/or add-on control device parameters at least every 15 minutes during the performance tests. The arithmetic average for each parameter must be calculated using all of the recorded measurements for the parameter.

§63.1384(a)(4) requires that the owner or operator shall conduct a performance test for each existing and new glass-melting furnace.

CertainTeed has an existing glass-melting furnace; therefore, the requirements these sections apply. Therefore, the following condition will be listed on permit -2-24 to ensure compliance:

- The owner or operator shall conduct a performance test for each existing and new glass-melting furnace. All monitoring systems and equipment must be installed, operational, and calibrated prior to the performance test. Unless a different frequency is specified in this section, the owner or operator must monitor and record process and/or add-on control device parameters at least every 15 minutes during the performance tests. The arithmetic average for each parameter must be calculated using all of the recorded measurements for the parameter. [40 CFR 63, Subpart NNN]

§63.1384(a)(3) requires that during each performance test, the owner or operator must monitor and record the glass pull rate for each glass-melting furnace and, if different, the glass pull rate for each rotary spin manufacturing line and flame attenuation manufacturing line. Record the glass pull rate every 15 minutes during any performance test required by this subpart and determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs.

CertainTeed has a glass-melting furnace and a rotary spin manufacturing line with a different glass pull rate; therefore, the requirements these sections apply. Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- During each performance test, the owner or operator must monitor and record the glass pull rate for each glass-melting furnace and, if different, the glass pull rate for the C-11 rotary spin manufacturing line. Record the glass pull rate every 15 minutes during any performance test required by this subpart and determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs. [40 CFR 63, Subpart NNN]

§63.1384(a)(5) requires that during the performance test, the owner or operator of a glass-melting furnace controlled by an ESP shall monitor and record the ESP parameter level(s), as specified in the operations, maintenance, and monitoring plan, and establish the minimum and/or maximum value(s) that will be used to demonstrate compliance after the initial performance test.

CertainTeed has a glass-melting furnace controlled by an ESP; therefore, the requirements these sections apply. Therefore, the following condition will be listed on permit -2-24 to ensure compliance:

- During the performance test, the owner or operator of a glass-melting furnace controlled by a DESP shall monitor and record the DESP parameter level(s), as specified in the operations, maintenance, and monitoring plan, and establish the minimum and/or maximum value(s) that will be used to demonstrate compliance after the initial performance test. [40 CFR 63, Subpart NNN]

§63.1384(a)(6) applies to cold top electric furnaces. CertainTeed does not operate a cold top electric furnace; therefore the requirements of this section do not apply.

§63.1384(a)(7) applies to glass-melting furnaces (other than a cold top electric furnace) that is not equipped with add-on control device for PM emissions. CertainTeed utilizes add on control devices for PM emissions for the glass-melting furnace; therefore the requirements of this section do not apply.

§63.1384(a)(8) requires that the owner or operator conduct a performance test for each rotary spin manufacturing line, subject to this subpart, while producing the building insulation with the highest LOI expected to be produced on that line; and for each flame attenuation manufacturing line, subject to this subpart, while producing the heavy-density product or pipe product with the highest LOI expected to be produced on the affected line.

Therefore, the following condition will be listed on permit -3-13 to ensure compliance:

- The owner or operator must conduct a performance test for the C-11 rotary spin manufacturing line, subject to this subpart, while producing the building insulation with the highest LOI expected to be produced on that line. [40 CFR 63, Subpart NNN]

§63.1384(a)(9) requires that the owner or operator of each rotary spin manufacturing line and flame attenuation manufacturing line regulated by this subpart must conduct performance tests using the resin with the highest free-formaldehyde content. During the performance test of each rotary spin manufacturing line and flame attenuation manufacturing line regulated by this subpart, the owner or operator shall monitor and record the free-formaldehyde content of the resin, the binder formulation used, and the product LOI and density.

Therefore, the following condition will be listed on permit -3-13 to ensure compliance:

- The owner or operator of each rotary spin manufacturing line regulated by this subpart must conduct performance tests using the resin with the highest free-formaldehyde content. During the performance test of each rotary spin manufacturing line regulated by this subpart, the owner or operator shall monitor and record the free-formaldehyde content of the resin, the binder formulation used, and the product LOI and density. [40 CFR 63, Subpart NNN]

§63.1384(a)(10) requires that during the performance test, the owner or operator of a rotary spin manufacturing line or flame attenuation manufacturing line who plans to use process modifications to comply with the emission limits in §63.1382 must monitor and record the process parameter level(s), as specified in the operations, maintenance, and monitoring plan, which will be used to demonstrate compliance after the initial performance test.

Therefore, the following condition will be listed on permit -3-13 to ensure compliance:

- During the performance test, the owner or operator of a rotary spin manufacturing line who plans to use process modifications to comply with the emission limits in Section 63.1382 must monitor and record the process parameter level(s), as specified in the operations, maintenance, and monitoring plan, which will be used to demonstrate compliance after the initial performance test. [40 CFR 63, Subpart NNN]

§63.1384(a)(11) applies to the owner or operator of a rotary spin manufacturing line or flame attenuation manufacturing line who plans to use a wet scrubbing control device to comply with the emission limits in §63.1382. This project does not modify the rotary spin manufacturing line.

§63.1384(a)(12) applies to the owner or operator of a rotary spin manufacturing line or flame attenuation manufacturing line equipped with an incinerator. This project does not modify the rotary spin manufacturing line.

§63.1384(a)(10) requires that unless disapproved by the Administrator, an owner or operator of a rotary spin or flame attenuation manufacturing line regulated by this subpart may conduct short-term experimental production runs using binder formulations or other process modifications where the process parameter values would be outside those established during performance tests without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Administrator approves a longer period. The owner or operator must notify the Administrator and postmark or deliver the notification at least 15 days prior to commencement of the short-term experimental production runs. The Administrator must inform the owner or operator of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of intent to perform an experimental short-term production run shall include the following information:

- (i) The purpose of the experimental production run;
- (ii) The affected line;
- (iii) How the established process parameters will deviate from previously approved levels;
- (iv) The duration of the experimental production run;
- (v) The date and time of the experimental production run; and
- (vi) A description of any emission testing to be performed during the experimental production run.

Therefore, the following condition will be listed on permit -3-13 to ensure compliance:

- Unless disapproved by the Administrator, an owner or operator of a rotary spin or flame attenuation manufacturing line regulated by this subpart may conduct short-term experimental production runs using binder formulations or other process modifications where the process parameter values would be outside those established during performance tests without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Administrator approves a longer period. The owner or operator must notify the Administrator and postmark or deliver the notification at least 15 days prior to commencement of the short-term experimental production runs. The Administrator must inform the owner or operator of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of intent to perform an experimental short-term production run shall include the following information:(i) The purpose of the experimental production run;(ii) The affected line;(iii) How the established process parameters will deviate from previously approved levels;(iv) The duration of the experimental production run;(v) The date and time of the experimental production run; and(vi) A description of any emission testing to be performed during the experimental production run. [40 CFR 63, Subpart NNN]

§63.1384(b) requires that to determine compliance with the PM emission limit for glass-melting furnaces, use the following equation:

$$E = \frac{C \times Q \times K_1}{P}$$

Where:

- E = Emission rate of PM, kg/Mg (lb/ton) of glass pulled;
- C = Concentration of PM, g/dscm (gr/dscf);
- Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h);
- K1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
- P = Average glass pull rate, Mg/h (tons/h).

Therefore, the following condition will be listed on permit -2-24 to ensure compliance:

- To determine compliance with the PM emission limit for glass-melting furnaces, use the following equation: $E = (C \times Q \times K_1)/P$, where: E = Emission rate of PM, kg/Mg (lb/ton) of glass pulled; C = Concentration of PM, g/dscm (gr/dscf); Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h); K1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and P = Average glass pull rate, Mg/h (tons/h). [40 CFR 63, Subpart NNN]

§63.1384(c) requires that to determine compliance with the emission limit for formaldehyde for rotary spin manufacturing lines and flame attenuation forming processes, use the following equation:

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{K_3 \times P \times 10^6}$$

Where:

- E = Emission rate of formaldehyde, kg/Mg (lb/ton) of glass pulled;
- C = Measured volume fraction of formaldehyde, ppm;
- MW = Molecular weight of formaldehyde, 30.03 g/g-mol;
- Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h);
- K₁ = Conversion factor, 1 kg/1,000 g (1 lb/453.6 g);
- K₂ = Conversion factor, 1,000 L/m³ (28.3 L/ft³);
- K₃ = Conversion factor, 24.45 L/g-mol; and
- P = Average glass pull rate, Mg/h (tons/h).

Therefore, the following condition will be listed on permit -3-13 to ensure compliance:

- To determine compliance with the emission limit for formaldehyde for rotary spin manufacturing lines, use the following equation: $E = (C \times MW \times Q \times K1 \times K2) / (K3 \times P \times 10^6)$, where: E = Emission rate of formaldehyde, kg/Mg (lb/ton) of glass pulled; C = Measured volume fraction of formaldehyde, ppm; MW = Molecular weight of formaldehyde, 30.03 g/g-mol; Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h); K1 = Conversion factor, 1 kg/1,000 g (1 lb/453.6 g); K2 = Conversion factor, 1,000 L/m³ (28.3 L/ft³); K3 = Conversion factor, 24.45 L/g-mol; and P = Average glass pull rate, Mg/h (tons/h). [40 CFR 63, Subpart NNN]

§63.1386: Notification, Recordkeeping, and Reporting Requirements

§63.1386(a) states that as required by §63.9(b) through (h) of this part, the owner or operator shall submit the following written initial notifications to the Administrator:

- (1) Notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;
- (2) Notification that a source is subject to the standard, where the initial startup is before June 14, 2002.
- (3) Notification that a source is subject to the standard, where the source is new or has been reconstructed, the initial startup is after June 14, 2002, and for which an application for approval of construction or reconstruction is not required;
- (4) Notification of intention to construct a new major source or reconstruct a major source; of the date construction or reconstruction commenced; of the anticipated date of startup; of the actual date of startup, where the initial startup of a new or reconstructed source occurs after June 14, 2002, and for which an application for approval or construction or reconstruction is required (See §63.9(b)(4) and (5) of this part);
- (5) Notification of special compliance obligations;
- (6) Notification of performance test; and
- (7) Notification of compliance status.

§63.1386(a)(1), §63.1386(a)(2), and §63.1386(a)(3) would not apply to CertainTeed since the facility is already a major source subject to the standard, initial start-up was before June 14, 2002, and this facility is not being reconstructed; therefore, the requirements these sections do not apply. However, the requirements of the remaining sections do apply. Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- The owner or operator shall submit the following written initial notifications to the Administrator:(1) Notification of intention to construct a new major source or reconstruct a major source; of the date construction or reconstruction commenced; of the anticipated date of startup; of the actual date of startup, where the initial startup of a new or reconstructed source occurs after June 14, 2002, and for which an application for approval or construction or reconstruction is required (See §63.9(b)(4) and (5) of this part);(2) Notification of special compliance obligations;(3) Notification of performance test; and (4) Notification of compliance status. [40 CFR 63, Subpart NNN]

§63.1386(b) states that as required by §63.10(d)(2) of the general provisions, the owner or operator shall report the results of the initial performance test as part of the notification of compliance status required in paragraph (a)(7) of this section.

Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- The owner or operator shall report the results of the initial performance test as part of the notification of compliance status. [40 CFR 63, Subpart NNN]

§63.1386(c)(1) states that the owner or operator shall develop and implement a written plan as described in §63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in §63.6(e)(3), the plan shall include:

- (i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;
- (ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and
- (iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

§63.1386(c)(2) states that the owner or operator shall also keep records of each event as required by §63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in §63.10(e)(3)(iv) of this part.

Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- The owner or operator shall develop and implement a written plan as described in §63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in §63.6(e)(3), the plan shall include: (i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; (ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and (iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. The owner or operator shall also keep records of each event as required by §63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in §63.10(e)(3)(iv) of this part. [40 CFR 63, Subpart NNN]

§63.1386(d)(1) states that as required by §63.10(b) of this part, the owner or operator shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart:

- (i) The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site;
- (ii) The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and
- (iii) The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

§63.1386(d)(1)(ii) and §63.1386(d)(1)(iii) does not apply to CertainTeed since the facility has not requested to record or submit their information in that manner. Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63, Subpart NNN]

§63.1386(d)(2) states that in addition to the general records required by §63.10(b)(2) of this part, the owner or operator shall maintain records of the following information:

- (i) Any bag leak detection system alarms, including the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected;

- (ii) ESP parameter value(s) used to monitor ESP performance, including any period when the value(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected;
- (iii) Air temperature above the molten glass in an uncontrolled cold top electric furnace, including any period when the temperature exceeded 120 °C (250 °F) at a location 46 to 61 centimeters (18 to 24 inches) above the molten glass surface, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected;
- (iv) Uncontrolled glass-melting furnace (that is not a cold top electric furnace) parameter value(s) used to monitor furnace performance, including any period when the value(s) exceeded the established limit(s), the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected;
- (v) The formulation of each binder batch and the LOI and density for each product manufactured on a rotary spin manufacturing line or flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation;
- (vi) Process parameter level(s) for RS and FA manufacturing lines that use process modifications to comply with the emission limits, including any period when the parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected;
- (vii) Scrubber pressure drop, scrubbing liquid flow rate, and any chemical additive (including chemical feed rate to the scrubber), including any period when a parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected;
- (viii) Incinerator operating temperature and results of periodic inspection of incinerator components, including any period when the temperature fell below the established average or the inspection identified problems with the incinerator, 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;
- (ix) Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected.

§63.1386(d)(2)(i), §63.1386(d)(2)(iii), §63.1386(d)(2)(iv), §63.1386(d)(2)(vii), and §63.1386(d)(2)(viii) does not apply to CertainTeed since the facility does not operate a bag

leak detection system, a cold top electric furnace, an uncontrolled glass-melting furnace, wet scrubbers, or incinerators.

§63.1386(d)(2)(ii) and §63.1386(d)(2)(ix) does apply to the glass-melting furnace. Therefore, the following condition will be listed on permit -2-24 to ensure compliance:

- The owner or operator shall maintain records of the following information: DESP parameter value(s) used to monitor DESP performance, including any period when the value(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected. [40 CFR 63, Subpart NNN]

§63.1386(d)(2) requires that in addition to the general records required by § 63.10(b)(2) of this part, the owner or operator shall maintain records of the following information:

§63.1386(d)(2)(v) The formulation of each binder batch and the LOI and density for each product manufactured on a rotary spin manufacturing line or flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation;

§63.1386(d)(2)(vi) Process parameter level(s) for RS and FA manufacturing lines that use process modifications to comply with the emission limits, including any period when the parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected;

§63.1386(d)(2)(ix) Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected.

Therefore, the following condition will be listed on permit -3-13 to ensure compliance:

- The owner or operator shall develop and implement a written plan as described in Section 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in Section 63.6(e)(3), the plan shall include:(i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;(ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and (iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. The owner or operator shall also keep records of each event as required by Section 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in Section 63.10(e)(3)(iv) of this part. [40 CFR 63, Subpart NNN]

§63.1386(e) states that as required by §63.10(e)(3)(v) of this part, the owner or operator shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in §63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period.

Therefore, the following condition will be listed on permits -2-24 and -3-13 to ensure compliance:

- The owner or operator shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in §63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period. [40 CFR 63, Subpart NNN]

Therefore, continued compliance with the requirements of this rule is expected.

Rule 4101 Visible Emissions

Rule 4101 states that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity.

The final stack (furnace/C-11/C-12 production line) is not subject to Rule 4101 since it is specifically exempted under Section 4.9 of Rule 4101. Section 4.9 states that the provision of this rule do not apply to wet plumes where the presence of uncombined water is the only reason for the failure of an emission to meet the limitations of this rule. The wet ESP control devices on the C-11 and C-12 production lines, which vent to the final stack, release a wet plume of uncombined water, making it difficult to determine demonstrate compliance with this rule.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

As demonstrated above, there are no increases in emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

Particulate matter (PM) emissions from the final stack, the C-1 Dry ESP, the C-11 North and South Wet ESPs, and the C-12 Wet ESP are not expected to exceed 0.1 gr/dscf, and annual testing for PM emissions is required by the Title V permit. Continued compliance is expected.

Rule 4202 Particulate Matter Emission Rate

This rule limits the allowable PM emission rate based on the equipment process weight rate. Section 3.1 defines the process weight as “the total weight of all materials introduced into any specific process, which process may cause any discharge into the atmosphere”.

Per section 4.1, particulate matter (PM) emissions from any source operation shall not exceed the allowable hourly emission rate (E) as calculated using the following applicable formulas:

$$E = 3.59 P^{0.62} \text{ (when, } P = \text{ process weight rate } \leq 30 \text{ tons/hr)}$$

$$E = 17.31 P^{0.16} \text{ (when, } P = \text{ process weight rate } > 30 \text{ tons/hr)}$$

C-261-2-24:

The post-project process weight rate of the furnace is 14.9 tons per hour (equivalent to 325 MT/day).

$$\begin{aligned} \text{Rule 4202 emission limit} &= 3.59 * P^{0.62} \text{ (where } P \text{ less than 30 tons/hr)} \\ &= 3.59 * (14.9)^{0.62} \\ &= 19.18 \text{ lb/hr} \end{aligned}$$

The furnace has a Post Project Potential to Emit (PE2) of 8.4 lb/hr and annual source testing for PM is required by the Title V permit.

C-261-3-13:

The post-project process weight rate of the is 11.9 tons per hour (equivalent to 260 MT/day).

$$\begin{aligned} \text{Rule 4202 emission limit} &= 3.59 * P^{0.62} \text{ (where } P \text{ less than 30 tons/hr)} \\ &= 3.59 * (11.9)^{0.62} \\ &= 16.7 \text{ lb/hr} \end{aligned}$$

The furnace has a Post Project Potential to Emit (PE2) of 11.8 lb/hr and annual source testing for PM is required by the Title V permit.

C-261-4-11:

The post-project process weight rate of the is 11.9 tons per hour (equivalent to 260 MT/day).

$$\begin{aligned} \text{Rule 4202 emission limit} &= 3.59 * P^{0.62} \text{ (where } P \text{ less than 30 tons/hr)} \\ &= 3.59 * (11.9)^{0.62} \\ &= 16.7 \text{ lb/hr} \end{aligned}$$

The furnace has a Post Project Potential to Emit (PE2) of 4.5 lb/hr and annual source testing for PM is required by the Title V permit.

Therefore, the PM emissions are within allowable limits and compliance with the rule is expected.

Rule 4301 Fuel Burning Equipment

This rule applies to units that consume fuel to produce heat or power through indirect heat transfer. As the glass furnace uses direct heat transfer, this unit is not considered to be fuel burning equipment per section 3.1, and this rule does not apply.

Rule 4354 Glass Melting Furnaces

The purpose of this rule is to limit emissions of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), oxides of sulfur (SO_x), and particulate matter (PM₁₀) from glass melting furnaces.

Section 5.1 identifies NO_x emission limits for glass melting furnaces. The furnace (C-261-2) is subject to the Tier 3 emission limits of Section 5.1. The Tier 3 limits for fiberglass furnaces (employing oxygen assisted combustion) are:

- NO_x: 3.0 lb/ton of glass pulled on a block 24-hour average (Subject to California Public Resources Code Section 19511), or
- 1.3 lb/ton rolling 30-day average (Not subject to California Public Resources Code Section 19511)

The facility has indicated that furnace is limited to the minimum cullet use requirements in California Public Resources Code Section 19511; therefore they will be subject to the 3.0 lb/ton NO_x emission limit in this rule. The following condition on permit C-261-2 will ensure compliance.

- During any day when nitrate is used in the furnace, final stack emissions shall not exceed 3.0 lb-NO_x/ton of glass pulled on a block 24-hour average. During any day when nitrate is not used in the furnace, final stack emissions shall not exceed 1.45 lb-NO_x/ton of glass pulled on a block 24-hour average. These emission limits shall not apply during periods of startup, shutdown, or idling, provided the facility complies with the requirements of Rule 4354, Sections 5.5, 5.6, 5.7, and 6.7. [District Rules 2201 and 4354]

Section 5.2 identifies CO and VOC emission limits for glass melting furnaces. The limits for fiberglass furnaces (employing oxygen assisted combustion) are:

- CO: 1.0 lb/ton of glass pulled on a rolling 3-hour average
- VOC: 0.25 lb/ton of glass pulled on a rolling 3-hour average

Section 5.3 identifies SO_x emission limits for glass melting furnaces. Effective on and after January 1, 2011, except as specified in Section 4.4 and Section 5.3.3, each furnace shall meet the applicable SO_x emission in Table 3. For operations producing fiberglass, the SO_x emission limit is 0.9 lb-SO_x/ton glass produced.

Section 5.4 identifies PM₁₀ emission limits for glass melting furnaces. For operations producing fiberglass, the PM₁₀ emission limit is 0.50 lb-PM₁₀/ton glass produced.

The following condition on the permit assures compliance with the requirements of Sections 5.2, 5.3, and 5.4.

- Emissions from the glass melting furnace shall not exceed any of the emission limits of District Rule 4354, as follows: 0.90 lb SO_x/short ton or glass pulled on a rolling 24 hour average, 0.50 lb-PM₁₀/short ton pulled on a block 24-hour average, 1.0 lb CO/short ton of glass pulled as averaged over a three hour period, or 0.25 lb VOC/short ton of glass pulled as averaged over a three hour period. These emission limits shall not apply during periods of startup, shutdown, or idling, provided the facility complies with the requirements of Rule 4354, Sections 5.5, 5.6, 5.7, and 6.7. [District Rule 4354]

Section 5.5 requires the facility to notify the APCO in writing to request a startup exemption from the emission limits specified in Section 5.1. Startup time shall not exceed 105 days for a fiberglass furnace (measured from when the primary furnace combustion system fires) using oxy-fuel, which is considered “innovative” as specified in Section 5.2.1.2.1 of Rule 4354. During startup, the stoichiometric ratio of the primary furnace combustion system shall not exceed 5% oxygen as calculated from the actual fuel and oxidant flow measurements for combustion in the furnace. This section also requires the emission control system to be in operation as soon as technologically feasible during startup to minimize emissions. The following conditions will ensure compliance.

- Permittee shall comply with Section 5.5 during startup. Startup exemption time shall not exceed 40 days, starting from the time of primary combustion system activation. [District Rule 4354]
- During startup, the stoichiometric ratio of the primary furnace combustion system shall not exceed 5% oxygen as calculated from the actual fuel and oxidant flow measurements for combustion in the furnace. [District Rule 4354]

Section 5.6 limits the period of furnace shutdown to 20 days, measured from when the furnace operation drops below the idle threshold specified in Section 3.9 of Rule 4354. The emission control system shall be in operation whenever technologically feasible during shutdown to minimize emissions. The following condition on permit C-261-2 will ensure compliance.

- Furnace shutdown shall not exceed 20 days, measured from the time furnace operations drop below the idle thresholds specified in Section 3.17 of District Rule 4354 to when all emissions from the furnace cease. [District Rule 4354]

Section 5.7 requires the emission control system to be in operation whenever technologically feasible during idling to minimize emissions. Permit conditions will be included to limit NO_x, CO and VOC emissions during idling to allowable levels as specified in Rule 4354. The following condition on permit C-261-2 will ensure compliance.

- The emission control systems (ECS) shall be in operation whenever technologically feasible during startup, idling and shutdown conditions. [District Rule 4354]
- NO_x, CO and VOC emissions during idling shall not exceed the emissions limits as calculated in Section 5.7.2 of District Rule 4354. [District Rule 4354]

Section 5.8 states any source testing result, CEMS, or alternate emission monitoring method averaged value exceeding the applicable emission limits in Section 5.1, Section 5.2, Section 5.3, or Section 5.4 shall constitute a violation of the rule. The following condition on permit C-261-2 will ensure compliance.

- Any source testing result, CEMS, or alternate emission monitoring method averaged value exceeding the applicable emission limits in Section 5.1, Section 5.2, Section 5.3, or Section 5.4 shall constitute a violation of the rule. [District Rule 4354]

Section 5.9.1 requires that the furnace be equipped with a NO_x Continuous Emissions Monitoring System (CEMS) approved by the District and meeting the requirements of Section 6.6. This furnace is equipped with a NO_x CEMS; therefore the unit already meets the requirements of this section. The following condition on permit C-261-2 will ensure compliance.

- CertainTeed Corporation shall maintain and operate the following continuous emissions monitoring systems (CEMS) in the final stack: (1) a CEMS to measure stack gas NO_x concentrations; (2) a CEMS to measure stack gas volumetric flow rates [District Rules 2201 and 4354; PSD ATC SJ 80-02]

Section 5.9.2 describes the monitoring requirements for CO and VOC. Effective on and after January 1, 2009, the furnace shall be equipped with a CO and VOC Continuous Emissions Monitoring System (CEMS). In lieu of installing a CO and VOC CEMS, the operator may propose key system operating parameter(s) and frequency of monitoring and recording. The alternate monitoring shall meet the requirements of Section 6.6.2. The operator shall obtain approval from the APCO and EPA for the specific key system operating parameter(s), monitoring frequency, and recording frequency. Acceptable range(s) for key system operating parameter(s) shall be demonstrated through source test.

The facility has proposed to continuously monitor the oxygen/fuel ratio to satisfy the monitoring requirements of Section 5.9.2 for CO and VOC. The facility has proposed an operating range greater than 1.7 to 1. Excursions below this value will trigger an inspection, corrective action, and reporting requirement. Measurements will be performed as the fuel and oxygen are injected into the furnace combustion zone. The oxygen/fuel ratio will be monitored continuously and logged on an hourly basis. The facility's parametric monitoring proposal was approved in project C-1095070. The following conditions on permit C-261-2 will ensure compliance.

- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the furnace oxygen/fuel ratio. [District Rules 1080 and 4354]
- The continuous parametric monitors specified in these permit conditions shall be installed, calibrated and operational prior to the next furnace source test. After the next furnace source test, the detection range of the Continuous Parametric Monitoring System shall be adjusted as necessary to accurately measure the resulting range of furnace oxygen/fuel ratio. [District Rule 2201]
- The furnace oxygen/fuel ratio shall be greater than 1.7 to 1. [District Rule 2201]
- Normal range for the furnace oxygen/fuel ratio shall be re-established during each source test required by this permit. [District Rule 2201]
- Results of the Continuous Parametric Monitoring System shall be logged in one hour intervals for furnace oxygen/fuel ratio. [District Rule 1080]

Section 5.9.3 describes the monitoring requirements for SO_x. On and after January 1, 2011, for each furnace subject to Section 5.3, the operator shall implement a SO_x CEMS that meets the requirements of Section 6.6.1 and that is approved, in writing, by the APCO and EPA. In lieu of installing and operating a CEMS for SO_x, an operator may propose key system operating parameter(s) and frequency of monitoring and recording. The alternate monitoring shall meet the requirements of Section 6.6.2. The operator shall obtain approval from the APCO and EPA for the specific key system operating parameter(s), monitoring frequency, and recording frequency. Acceptable range(s) for key system operating parameter(s) shall be demonstrated through source test.

The facility has proposed to continuously monitor the water flow and the specific gravity in the caustic soda injection system used for SO_x and PM₁₀ control from the furnace to satisfy the monitoring requirements of Section 5.9.3 for SO_x. The facility has proposed that the liquid flow rate shall not fall below 0.5 gallons/minute and that the liquid specific gravity shall not fall below 1.01. Excursions below this value will trigger an inspection, corrective action, and reporting requirement. The values will be measured continuously, recorded every hour, and averaged daily. The facility's parametric monitoring proposal is included as Appendix C. The following conditions on permit C-261-2 will ensure compliance.

- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the caustic soda injection system's liquid flow rate and liquid specific gravity. [District Rules 1080 and 4354]
- The caustic soda injection system's liquid flow rate shall not be lower than 0.5 gallons/minute. [District Rule 4354]
- The caustic soda injection system's liquid specific gravity shall not be lower than 1.01. [District Rule 4354]
- Results of the Continuous Parametric Monitoring System monitoring the liquid flow rate and liquid specific gravity of the caustic soda injection system shall be recorded every hour. [District Rule 1080]

Section 5.9.4 describes the monitoring requirements for PM₁₀. On and after January 1, 2011 the operator shall propose key system operating parameter(s) and frequency of monitoring and recording. The alternate monitoring shall meet the requirements of Section 6.6.2. The operator shall obtain approval from the APCO and EPA for the specific key system operating parameter(s), monitoring frequency, and recording frequency. Acceptable range(s) for key system operating parameter(s) shall be demonstrated through source test.

The facility has proposed to continuously monitor the voltage of the dry electrostatic precipitator (EP) to satisfy the monitoring requirements of Section 5.9.4 for PM₁₀. The facility has proposed to maintain the voltage of the dry EP at 1,800 kV. An excursion will occur when the dry EP voltage is less than 1,800 kV for more than 6 minutes continuously. Excursions will trigger an inspection, corrective action, and reporting requirement. The values will be measured continuously, recorded at least four times each hour, and averaged daily. The facility's parametric monitoring proposal is included as Appendix C. The following conditions on permit C-261-2 will ensure compliance.

- The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the voltage of the dry electrostatic precipitator. [District Rules 1080 and 4354]
- The dry electrostatic precipitator voltage shall not drop below 1,800 kV for more than 6 continuous minutes. [District Rule 4354]
- Results of the Continuous Parametric Monitoring System monitoring the dry electrostatic precipitator voltage shall be recorded at least four times per hour. [District Rule 1080]

Section 6.1 requires that each glass melting furnace's PTO shall include the furnace's permitted glass production capacity in units of tons of glass pulled per day as a permit condition. The current PTO contains a permit condition limiting the furnace's glass production capacity.

The following condition on permit C-261-2 will ensure compliance.

- The glass melting furnace shall produce no more than 325 metric tons/day nor 118,625 metric tons/year. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA or CARB. [District Rule 2201; District Rule 4354; PSD ATC SJ 80-02]

Section 6.3 describes the operation records that need to be maintained. Section 6.3.1 states that operators shall maintain daily records of the following items:

- Total hours of operation;
- The quantity of glass pulled from each furnace;
- NO_x emission rate in lb/ton glass pulled;
- CO emission rate in units matching Table 2, if a CEMS is used;
- VOC emission rate in units matching Table 2, if a CEMS is used;
- SO_x emission rate in lb/ton glass pulled, if a CEMS is used;
- PM₁₀ emission rate in lb/ton glass pulled, if a CEMS is used;
- For container glass furnaces that are oxy-fuel fired:
 - The weight of mixed color mix cullet used;
 - The total amount of cullet used by weight; and
 - The ratio, expressed in percent, of mixed color mix weight to total cullet weight.

The CEMS on the furnace only monitors NO_x emissions therefore; the following condition on permit C-261-2 will ensure compliance.

- Operator shall maintain daily records of the total hours of operation, type and quantity of fuel used in the furnace, the quantity of glass pulled from the furnace, NO_x emission rate in lb/short ton of glass pulled. Operator shall maintain records of source tests and operating parameters established during initial source test, maintenance and repair, malfunction, and idling, start-up and shutdown. [District Rule 4354]

Section 6.3.2 states that for pollutants monitored using an approved parametric monitoring arrangement, operators shall record the operating values of the key system operating parameters at the approved recording frequency.

The following conditions on permit C-261-2 will ensure compliance.

- Results of the Continuous Parametric Monitoring System shall be logged in one hour intervals for furnace oxygen/fuel ratio. [District Rule 1080]
- Results of the Continuous Parametric Monitoring System monitoring the liquid flow rate and liquid specific gravity of the caustic soda injection system shall be recorded every hour. [District Rule 1080]

- Results of the Continuous Parametric Monitoring System monitoring the dry electrostatic precipitator voltage shall be recorded twice per minute. [District Rule 1080]

Section 6.3.3 states that operators shall maintain records of the following items:

- Source tests and source test results;
- The acceptable range for each approved key system operating parameter, as established during source test;
- Maintenance and repair; and
- Malfunction.

The following condition on permit C-261-2 will ensure compliance.

- Operator shall maintain daily records of the total hours of operation, type and quantity of fuel used in the furnace, the quantity of glass pulled from the furnace, NOx emission rate in lb/short ton of glass pulled. Operator shall maintain records of source tests and operating parameters established during initial source test, maintenance and repair, malfunction, and idling, start-up and shutdown. [District Rule 4354]

Section 6.3.4 states the operator shall retain records specified in Sections 6.3.1 through 6.3.3 for a period of five years; make the records available on site during normal business hours to the APCO, ARB, or EPA; and submit the records to the APCO, ARB, or EPA upon request.

The following condition on permit C-261-2 will ensure compliance.

- The operator shall retain the records specified in this permit for a period of five years, make them available on site during normal business hours to the APCO, ARB, or EPA, and submit them to the APCO, ARB, or EPA upon request. [District Rule 4354]

Section 6.4 states that, “each glass melting furnace or a furnace battery shall be source tested at least once every calendar year, but not more than every 18 months and not sooner than every 6 months to demonstrate compliance with the applicable requirements of Section 5.0.”

The following condition on permit C-261-2 will ensure compliance.

- Source tests shall be performed at least on an annual basis and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NOx, SOx, and VOC. [District Rules 2520 and 4354, and PSD ATC SJ 80-02]

Section 6.5 requires that the facility demonstrate compliance annually with the applicable emission limits using the test methods listed below.

- 6.5.1 Oxides of nitrogen - EPA Method 7E, EPA Method 19, or ARB Method 100
- 6.5.2 CO (ppmv) - EPA Method 10 or ARB Method 100
- 6.5.3 VOC (ppmv) – EPA Method 25A expressed in terms of carbon or ARB Method 100. EPA Method 18 or ARB Method 422 shall be used to determine emissions of exempt compounds.
- 6.5.4 Stack gas oxygen, carbon dioxide, excess air, and dry molecular weight - EPA Method 3 or 3A or ARB Method 100
- 6.5.5 Stack gas velocity and volumetric flow rate - EPA Method 2
- 6.5.6 Oxides of sulfur – EPA Method 6C, EPA Method 8, or ARB Method 100.
- 6.5.7 The SO_x emission control system efficiency shall be determined using the following:
 - EPA Method 2 for measuring flow rates; and
 - EPA Method 6C or EPA Method 8 for measuring total SO_x (expressed as SO₂) concentrations at the inlet and outlet of the control device.
 - The SO_x emission control system efficiency shall be calculated using the following equation:
$$\% \text{ Control Efficiency} = [(C_{\text{SO}_2, \text{inlet}} - C_{\text{SO}_2, \text{outlet}}) / C_{\text{SO}_2, \text{inlet}}] \times 100$$

Where:

$C_{\text{SO}_2, \text{inlet}}$ = concentration of SO_x (expressed as SO₂) at the inlet side of the SO_x emission control system, in lb/dscf

$C_{\text{SO}_2, \text{outlet}}$ = concentration of SO_x (expressed as SO₂) at the outlet side of the SO_x emission control system, in lb/dscf
- 6.5.8 Sulfur content of liquid fuel – ASTM D 6428-99 or ASTM D 5453-99
- 6.5.9 PM₁₀ Test Methods
 - Filterable PM₁₀ Emissions – EPA Method 5, 201, or 201A. An operator choosing EPA Method 5 shall count all PM collected as PM₁₀.
 - Condensable PM₁₀ Emissions – EPA Method 202 with the following procedures:
 - Purge the impinger with dry nitrogen for one hour. The one-hour purge with dry nitrogen shall be performed as soon possible after the final leak check of the system.

- Neutralize the inorganic portion to a pH of 7.0. Use the procedure, "Determination of NH₄ Retained in Sample by Titration" described in Method 202 to neutralize the sulfuric acid. Neutralizing the inorganic portion to a pH of 7.0 determines the unneutralized sulfuric acid content of the sample without over-correcting the amount of neutralized sulfate in the inorganic portion.
- Evaporate the last 1 ml of the inorganic fraction by air drying following evaporation of the bulk of the impinger water in a 105 degrees C oven as described in the first sentence of the Method 202 section titled "Inorganic Fraction Weight Determination."

The following conditions on permit C-261-2 will ensure compliance.

- The following test methods shall be used, NO_x: EPA Method 7E, 19, or ARB Method 100, CO: EPA Method 10 or ARB Method 100, VOC: EPA Method 25A expressed in terms of carbon or ARB Method 100. EPA Method 18 or ARB Method 422 shall be used to determine emissions of exempt compounds, SO_x: EPA Method 6C, EPA Method 8, or ARB Method 100. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 4354]
- Stack gas oxygen, carbon dioxide, excess air, and dry molecular weight for source testing purposes shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4354]
- Stack gas velocity and volumetric flow rate for source testing purposes shall be determined using EPA Method 2. [District Rule 4354]
- Sulfur content of the fuel oil shall be determined by ASTM Method D-129, D-1552, D-6428, D-5453, or the most current method promulgated by ASTM. Other methods may be used if approved by EPA, Region 9 (Attention: A-3-3). [District Rule 4354, PSD ATC SJ 80-02; Madera County Rule 404]
- PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [District Rule 2201; District Rule 4202; District Rule 2520, 9.4.2; PSD ATC SJ 80-02; and 40 CFR 60 Subpart CC]

Section 6.6 requires an approved CEMS to comply with the requirements of 40 Code of Federal Regulations (CFR) Part 51, 40 CFR Parts 60.7 and 60.13, 40 CFR Part 60 Appendix B (Performance Specifications) and Appendix F (Quality Assurance Procedures), and applicable sections of Rule 1080 (Stack Monitoring).

The following condition on permit C-261-2 will ensure compliance.

- The applicant shall maintain and operate CEM to measure stack gas NOx concentration (per 40 CFR 60.13 and 40 CFR, Appendix B, Performance Spec. 2; and 40 CFR 60 Appendix F) and stack gas volumetric flow rate (per 40 CFR Part 52, Appendix E). [District Rule 2201; PSD ATC SJ 80-02]

Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO₂, on a dry basis averaged over 15 consecutive minutes.

The furnace is fired on natural gas (with low-sulfur fuel oil or LPG/propane as back-up fuels).

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{n RT}{P}$$

With:

N = moles SO₂

T (Standard Temperature) = 60°F = 520°R

P (Standard Pressure) = 14.7 psi

R (Universal Gas Constant) = $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$

$$\frac{0.00285 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}} \times \frac{520 \text{ °R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 1.97 \frac{\text{parts}}{\text{million}}$$

$$\text{SulfurConcentration} = 1.97 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with District Rule 4801 requirements is expected.

Prevention of Significant Deterioration (PSD)

PSD conditions were placed on the existing permits to demonstrate compliance with the unit's PSD permits. Some of the PSD conditions were also used to demonstrate compliance with current District rules and regulations. These PSD conditions were listed in the applicable rule compliance sections. The PSD conditions that were not addressed in the rule compliance sections above are listed below:

C-261-2-24:

- With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NOx established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NOx at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02]
- EPA shall be notified by letter 30 days prior to the fuel switch or production increase in order to make a determination of whether additional performance testing is required. In the case of an emergency fuel switch, EPA shall be notified by letter postmarked within 15 days of the fuel switch. [PSD ATC SJ 80-02]
- Certification of the sulfur content of each fuel oil delivery by the supplier will be acceptable; the analytical method used to determine sulfur content must be one of those cited. [PSD ATC SJ 80-02; Madera County Rule 404]
- The applicant shall maintain and operate an opacity CEMS in the final stack to continuously measure the opacity of stack emissions. The opacity CEMS shall meet EPA specs. (40 CFR 60.13; and 40 CFR 60, Appendix B, Performance Specification 1) [PSD ATC SJ 80-02]
- The NOx CEMS shall meet EPA monitoring performance specifications (40 CFR 60.13, 40 CFR 60, Appendix B, Performance Specification 2; and 40 CFR 60, Appendix F). [PSD ATC SJ 80-02]
- The volumetric flow rate CEMS shall meet EPA monitoring performance specifications (40 CFR 52, Appendix E). [PSD ATC SJ 80-02]
- In the quarterly excess emission reports, CertainTeed Corporation shall report all dates and times when process gases are vented to the bypass stack, CertainTeed Corporation shall also report the reason for each instance of venting to the bypass stack. [PSD ATC SJ 80-02]
- Excess emissions indicated by the CEM system shall be considered violations of the applicable emissions limits for the purposes of this permit. [PSD ATC SJ 80-02]

C-261-3-13:

- Fiberglass production on the C-11 Line shall not exceed 260 metric tons per day and 94,900 metric tons per year. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA and CARB. [PSD ATC SJ 80-02]
- With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NOx established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NOx at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02]
- EPA shall be notified by letter 30 days prior to a production increase in order to make a determination of whether additional performance testing is required. [PSD ATC SJ 80-02]
- Only PUC regulated natural gas shall be used. [PSD ATC SJ 80-02; Madera County Rule 404]
- A permanent record of daily production shall be maintained and shall be available for inspection by EPA, CARB and the District. [District Rule 2520; PSD ATC SJ 80-02]
- Source tests shall be performed at least on an annual basis and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NOx, SOx, and VOC. [District Rule 2520; PSD ATC SJ 80-02]
- PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [PSD ATC SJ 80-02]
- The source tests for PM shall be performed at the outlet of the two wet ESP's and the final stack. The source tests for NOx, SOx, and VOC shall be performed at the final stack. [PSD ATC SJ 80-02]
- The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02]
- CertainTeed shall continuously operate and maintain the wet cyclonic scrubbers for the pretreatment of the gas stream upstream of the south wet ESP. [PSD ATC SJ 80-02]

- Both the cyclonic scrubbers and the South wet ESP shall be functioning as air pollution abatement devices whenever there is glass production on the C-11 Line. [PSD ATC SJ 80-02]
- The North wet ESP shall be functioning as air pollutant abatement device whenever there is glass production on the C-11 Line. [PSD ATC SJ 80-02]

C-261-4-11:

- Fiberglass production on the C-12 Line shall not exceed 260 metric tons per day and 94,900 metric tons per year. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA and CARB. [District Rule 2201; PSD ATC SJ 80-02]
- With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NOx established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NOx at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02]
- EPA shall be notified by letter 30 days prior to a production increase in order to make a determination of whether additional performance testing is required. [PSD ATC SJ 80-02]
- Only PUC regulated natural gas shall be used. [PSD ATC SJ 80-02; Madera County Rule 404]
- Particulate matter emissions shall not exceed 2.6 lb/hour, until EPA approves modification to PSD ATC SJ 80-02 to increase the maximum emission rate. Upon EPA approval, particulate matter emissions shall not exceed 4.5 lb/hour. [PSD ATC 80-02]

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission units are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District conducted a Risk Management Review and concludes that potential health impacts are less than significant.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful EPA Noticing period, issue ATCs C-261-2-24, -3-13, and -4-11 subject to the permit conditions on the attached draft ATCs in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-261-2-24	3020-02-H	96 MMBtu/hr furnace	\$1,030.00
C-261-3-13	3020-02-H	51.44 MMBtu/hr	\$1,030.00
C-261-4-11	3020-02-H	27.44 MMBtu/hr	\$1,030.00

Appendixes

- A: Draft ATCs
- B: Current PTOs
- C: SO_x and PM₁₀ Parametric Monitoring Proposal

APPENDIX A

Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-261-2-24

LEGAL OWNER OR OPERATOR: CERTAINTeed CORPORATION
MAILING ADDRESS: 17775 AVENUE 23 1/2
CHOWCHILLA, CA 93610

LOCATION: 17775 AVENUE 23 1/2
CHOWCHILLA, CA 93610

EQUIPMENT DESCRIPTION:

MODIFICATION OF 96 MMBTU/HR, 325 METRIC TONS/DAY GLASS MELTING OXY-FUEL FURNACE WITH 12 (8 MMBTU/HR EACH) COMBUSTION TEC FLAT FLAME BURNERS; REDUCE NOX AND SOX EMISSIONS LIMITS, AND ADD SOX AND PM10 PARAMETRIC MONITORING REQUIREMENTS FOR COMPLIANCE WITH RULE 4354, AND LOWER THE NOX AND SOX DAILY EMISSIONS LIMITS SHARED WITH UNITS -3 AND -4

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) C-261-2-23 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
5. The glass melting furnace shall produce no more than either of the following limits: 325 metric tons/day or 118,625 metric tons/year. A permanent record of daily production and of daily nitrate addition to the furnace shall be maintained and shall be available for inspection by the District, EPA or CARB. [District NSR Rule; District Rule 4354; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services
C-261-2-24 Sep 25 2012 3 24PM - FUKUDAD Joint Inspection NOT Required

6. All fiberglass shall contain a minimum of 30% by weight post-consumer cullet on an annual average basis. The facility shall maintain records of the annual amount (in tons) of post-consumer cullet used. [District Rule 2201] Federally Enforceable Through Title V Permit
7. With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NO_x established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NO_x at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
8. EPA shall be notified by letter 30 days prior to the fuel switch or production increase in order to make a determination of whether additional performance testing is required. In the case of an emergency fuel switch, EPA shall be notified by letter postmarked within 15 days of the fuel switch. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
9. The sulfur content of fuel oil shall not exceed 0.0015% by weight. [District Rules 2201 and 4354, Madera County Rule 404] Federally Enforceable Through Title V Permit
10. The rate of fuel oil consumption shall not exceed 570 gal/hr nor 5,000,000 gal/year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Sulfur content of the fuel oil shall be determined by ASTM Method D-129, D-1552, D-6428, D-5453, or the most current method promulgated by ASTM. Other methods may be used if approved by EPA, Region 9 (Attention: A-3-3). [District Rule 4354, PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
12. Certification of the sulfur content of each fuel oil delivery by the supplier will be acceptable; the analytical method used to determine sulfur content must be one of those cited. [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
13. All natural gas used by the facility shall be PUC regulated. [District Rule 2201; PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
14. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA or CARB. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
15. Source tests shall be performed while operating at design capacity. To determine worst case emissions, the tests shall be performed while firing on natural gas, and separately while firing 0.0015% sulfur backup fuel oil. With prior EPA and District approval, source testing may be performed as otherwise provided. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
16. Source tests shall be performed at least on an annual basis, but not more than once every 18 months or sooner than every 6 months and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NO_x, SO_x, and VOC. [District Rules 2520 and 4354, and PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
17. Source testing for NO_x from the final stack shall be performed under normal operating conditions at the time of the test. Testing shall be performed in the presence of nitrate additive if daily records indicate that nitrate is routinely used in the furnace during the period immediately prior to the test. If nitrate use is discontinued by the facility during normal operations, NO_x source testing shall be performed without nitrate additive in the furnace. [District Rule 2201] Federally Enforceable Through Title V Permit
18. PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [District Rule 2201; District Rule 4202; District Rule 2520; PSD ATC SJ 80-02; and 40 CFR 60 Subpart CC] Federally Enforceable Through Title V Permit
19. Source tests for PM shall be performed at the outlet of the dry ESP, the outlet of the three wet ESP's and the final stack. The source tests for NO_x, SO_x, and VOC shall be performed at the final stack. [District Rules 2201, 2520, and 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
22. The outlets of the dry ESP and the final stack shall be so fitted as to permit performance of tests for pollutants (per 40 CFR 60, Appendix A) using portable equipment in a manner as approved by the EPA, CARB and the District. [District Rule 1081] Federally Enforceable Through Title V Permit
23. The applicant shall maintain and operate CEM to measure stack gas NO_x concentration (per 40 CFR 60.13 and 40 CFR, Appendix B, Performance Spec. 2; and 40 CFR 60 Appendix F) and stack gas volumetric flow rate (per 40 CFR Part 52, Appendix E). [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
24. The applicant shall maintain and operate an opacity CEMS in the final stack to continuously measure the opacity of stack emissions. The opacity CEMS shall meet EPA specs. (40 CFR 60.13; and 40 CFR 60, Appendix B, Performance Specification 1) [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
25. The facility shall maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
26. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
27. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
28. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080] Federally Enforceable Through Title V Permit
29. CertainTeed Corporation shall submit to EPA (Attention: Air-5) a written report of all excess emissions for each calendar quarter. The report shall include the conditions specified in EPA Permit Special Conditions IX.J.4. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
30. CertainTeed shall continuously operate and maintain the caustic soda injection system for the pretreatment of the glass furnace gas stream upstream of the dry ESP. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
31. Both the caustic soda injection system (scrubber) and the dry electrostatic precipitator shall be functioning as air pollution abatement devices whenever the glass melting furnace is in operation. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
32. Dry Electrostatic Precipitator (ESP) outlet emissions shall not exceed 8.4 lbs PM/hr. [District Rules 2201 and 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
33. When the furnace is heated with LPG/propane, final stack emissions shall not exceed 547.2 lb PM/day, 547.2 lb PM₁₀/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,074.7 lb NO_x/day, 322.4 lb SO_x/day, or 1,072.8 lb CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
34. When the furnace is heated with natural gas, final stack emissions shall not exceed 22.8 lb PM/hr, 22.8 lb PM₁₀/hr, 18.0 lb HC/hr, 18.0 lb VOC/hr, 55.9 lb NO_x/hr, 24.3 lb SO_x/hr, nor 44.7 lb CO/hr. [District Rules 2201, 4354, and 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
35. When the furnace is heated with fuel oil, final stack emissions shall not exceed 22.8 lb PM/hr, 22.8 lb PM₁₀/hr, 18.0 lb HC/hr, 18.0 lb VOC/hr, 40.0 lb NO_x/hr, 54.0 lb SO_x/hr, nor 44.7 lb CO/hr. [District Rules 2201, 4354, and 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

36. During any day when nitrate is used in the furnace, final stack emissions shall not exceed 3.0 lb-NO_x/ton of glass pulled on a block 24-hour average. During any day when nitrate is not used in the furnace, final stack emissions shall not exceed 1.45 lb-NO_x/ton of glass pulled on a block 24-hour average. These emission limits shall not apply during periods of startup, shutdown, or idling, provided the facility complies with the requirements of Rule 4354, Sections 5.5, 5.6, 5.7, and 6.7. [District Rule 2201 and 4354] Federally Enforceable Through Title V Permit
37. Emissions from the glass melting furnace shall not exceed any of the emission limits of District Rule 4354, as follows: 0.90 lb SO_x/short ton or glass pulled on a rolling 24-hour average, 0.50 lb-PM₁₀/short ton pulled on a block 24-hour average, 1.0 lb CO/short ton of glass pulled as averaged over a three hour period, or 0.25 lb VOC/short ton of glass pulled as averaged over a three hour period. These emission limits shall not apply during periods of startup, shutdown, or idling, provided the facility complies with the requirements of Rule 4354, Sections 5.5, 5.6, 5.7, and 6.7. [District Rule 4354] Federally Enforceable Through Title V Permit
38. Source testing to measure NO_x, SO_x, PM, CO, and VOC emissions from this unit shall be conducted while firing on fuel oil when this unit is fired on fuel oil during the previous 12 months from the date of the proposed source test. After demonstrating compliance on two consecutive annual source tests when the unit is fired on fuel oil, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emissions limits, the source testing frequency shall revert to at least once every 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit
39. Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
40. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the furnace oxygen/fuel ratio. [District Rules 1080 and 4354] Federally Enforceable Through Title V Permit
41. The furnace oxygen/fuel ratio shall be greater than 1.7 to 1. [District Rule 2201] Federally Enforceable Through Title V Permit
42. Normal range for the furnace oxygen/fuel ratio shall be re-established during each source test required by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
43. Results of the Continuous Parametric Monitoring System system shall be logged in one hour intervals for furnace oxygen/fuel ratio. [District Rule 1080] Federally Enforceable Through Title V Permit
44. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the caustic soda injection system's liquid flow rate and liquid specific gravity. [District Rules 1080 and 4354] Federally Enforceable Through Title V Permit
45. The caustic soda injection system's liquid flow rate shall not be lower than 0.5 gallons/minute. [District Rule 4354] Federally Enforceable Through Title V Permit
46. The caustic soda injection system's liquid specific gravity shall not be lower than 1.01. [District Rule 4354] Federally Enforceable Through Title V Permit
47. Results of the Continuous Parametric Monitoring System monitoring the liquid flow rate and liquid specific gravity of the caustic soda injection system shall be recorded every hour. [District Rule 1080] Federally Enforceable Through Title V Permit
48. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the voltage of the dry electrostatic precipitator. [District Rules 1080 and 4354] Federally Enforceable Through Title V Permit
49. The dry electrostatic precipitator voltage shall not drop below 1,800 kV for more than 6 continuous minutes. [District Rule 4354] Federally Enforceable Through Title V Permit
50. Results of the Continuous Parametric Monitoring System monitoring the dry electrostatic precipitator voltage shall be recorded at least four times per hour. [District Rule 1080] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

51. The continuous parametric monitors specified in these permit conditions shall be installed, calibrated and operational prior to the next furnace source test. After the next furnace source test, the detection range of the Continuous Parametric Monitoring System shall be adjusted as necessary to accurately measure the resulting range of furnace oxygen/fuel ratio. [District Rule 2201] Federally Enforceable Through Title V Permit
52. The owner or operator shall submit a written report of furnace oxygen/fuel ratio Continuous Parametric Monitoring System operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess oxygen/fuel ratio, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the furnace oxygen/fuel ratio test period and used to determine compliance with the furnace oxygen/fuel ratio standard; Applicable time and date of each period during which the Continuous Parametric Monitoring System was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
53. The owner or operator shall submit a written report of the caustic soda injection system Continuous Parametric Monitoring System operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess of the caustic soda injection rate or specific gravity, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the caustic soda injection system flow rate and specific gravity test period and used to determine compliance with the caustic soda injection system flow rate and specific gravity standard; Applicable time and date of each period during which the Continuous Parametric Monitoring System was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
54. The owner or operator shall submit a written report of the dry electrostatic precipitator Continuous Parametric Monitoring System operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess of the dry electrostatic precipitator, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the dry electrostatic precipitator test period and used to determine compliance with the dry electrostatic precipitator standard; Applicable time and date of each period during which the Continuous Parametric Monitoring System was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
55. CertainTeed Corporation shall maintain and operate the following continuous emissions monitoring systems (CEMS) in the final stack: (1) a CEMS to measure stack gas NO_x concentrations; (2) a CEMS to measure stack gas volumetric flow rates [District Rule 2201 and 4354; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
56. The NO_x CEMS shall meet EPA monitoring performance specifications (40 CFR 60.13, 40 CFR 60, Appendix B, Performance Specification 2; and 40 CFR 60, Appendix F). [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
57. The volumetric flow rate CEMS shall meet EPA monitoring performance specifications (40 CFR 52, Appendix E). [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
58. In the quarterly excess emission reports, CertainTeed Corporation shall report all dates and times when process gases are vented to the bypass stack, CertainTeed Corporation shall also report the reason for each instance of venting to the bypass stack. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rules 4201 (12/17/92) and 4202 (12/17/92); and Madera County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
60. A record of each fuel consumption shall be maintained, kept onsite for at least five years and made available for inspection by EPA, CARB and the District upon request. [District 2520] Federally Enforceable Through Title V Permit
61. Source shall be in compliance with all requirements of District Rule 4354 by the end of startup as prescribed in Section 7.1 of District Rule 4354. [District Rule 4354] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

62. Furnace shutdown shall not exceed 20 days, measured from the time furnace operations drop below the idle thresholds specified in Section 3.17 of District Rule 4354 to when all emissions from the furnace cease. [District Rule 4354] Federally Enforceable Through Title V Permit
63. NO_x, CO and VOC emissions during idling shall not exceed the emissions limits as calculated in Section 5.7.2 of District Rule 4354. [District Rule 4354] Federally Enforceable Through Title V Permit
64. Any source testing result, CEMS, or alternate emission monitoring method averaged value exceeding the applicable emission limits in Section 5.1, Section 5.2, Section 5.3, or Section 5.4 shall constitute a violation of the rule. [District Rule 4354] Federally Enforceable Through Title V Permit
65. The following test methods shall be used, NO_x: EPA Method 7E, 19, or ARB Method 100, CO: EPA Method 10 or ARB Method 100, VOC: EPA Method 25A expressed in terms of carbon or ARB Method 100. EPA Method 18 or ARB Method 422 shall be used to determine emissions of exempt compounds, SO_x: EPA Method 6C, EPA Method 8, or ARB Method 100. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 4354] Federally Enforceable Through Title V Permit
66. Stack gas oxygen, carbon dioxide, excess air, and dry molecular weight for source testing purposes shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4354] Federally Enforceable Through Title V Permit
67. Stack gas velocity and volumetric flow rate for source testing purposes shall be determined using EPA Method 2. [District Rule 4354] Federally Enforceable Through Title V Permit
68. Permittee shall comply with Section 5.5 during startup. Startup exemption time shall not exceed 40 days, starting from the time of primary combustion system activation. [District Rule 4354] Federally Enforceable Through Title V Permit
69. The emission control systems (ECS) shall be in operation whenever technologically feasible during startup, idling and shutdown conditions. [District Rule 4354] Federally Enforceable Through Title V Permit
70. During startup, the stoichiometric ratio of the primary furnace combustion system shall not exceed 5% oxygen as calculated from the actual fuel and oxidant flow measurements for combustion in the furnace. [District Rule 4354] Federally Enforceable Through Title V Permit
71. Operator shall maintain daily records of the total hours of operation, type and quantity of fuel used in the furnace, the quantity of glass pulled from the furnace, NO_x emission rate in lb/ton of glass pulled. Operator shall maintain records of source tests and operating parameters established during initial source test, maintenance and repair, malfunction, and idling, start-up and shutdown. [District Rule 4354] Federally Enforceable Through Title V Permit
72. The operator shall retain the records specified in this permit for a period of five years, make them available on site during normal business hours to the APCO, ARB, or EPA, and submit them to the APCO, ARB, or EPA upon request. [District Rule 4354] Federally Enforceable Through Title V Permit
73. Excess emissions indicated by the CEM system shall be considered violations of the applicable emissions limits for the purposes of this permit. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
74. The owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of filterable particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled for each new or existing glass-melting furnace. [40 CFR 63, Subpart NNN and 40 CFR 60, Subpart CC] Federally Enforceable Through Title V Permit
75. The owner or operator must initiate corrective action within 1 hour when any 3-hour block average of the monitored dry electrostatic precipitator (DESP) parameter is outside the limit(s) established during the performance test as specified in Section 63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
76. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64 subpart D when the monitored DESP parameter is outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

77. The owner or operator must operate the DESP such that the monitored DESP parameter is not outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
78. The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in Section 63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
79. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
80. The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
81. The owner or operator of each wool fiberglass manufacturing facility must prepare for each glass-melting furnace, rotary spin manufacturing line a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information: Procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in Section 63.1382; Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and Corrective actions to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
82. The owner or operator must monitor the DESP according to the procedures in the operations, maintenance, and monitoring plan. The operations, maintenance, and monitoring plan for the ESP must contain the following information: The ESP operating parameter(s), such as secondary voltage of each electrical field, to be monitored and the minimum and/or maximum value(s) that will be used to identify any operational problems; A schedule for monitoring the ESP operating parameter(s); Recordkeeping procedures, consistent with the recordkeeping requirements of Section 63.1386, to show that the ESP operating parameter(s) is within the limit(s) established during the performance test; and Procedures for the proper operation and maintenance of the ESP. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
83. The owner or operator of an existing glass-melting furnace equipped with continuous glass pull rate monitors must monitor and record the glass pull rate on an hourly basis. For glass-melting furnaces that are not equipped with continuous glass pull rate monitors, the glass pull rate must be monitored and recorded once per day. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
84. The owner or operator must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
85. The owner or operator must include as part of their operations, maintenance, and monitoring plan the following information: Procedures for the proper operation and maintenance of the process; Process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in Section 63.1382; Correlation(s) between process parameter(s) to be monitored and formaldehyde emissions; A schedule for monitoring the process parameter(s); and Recordkeeping procedures, consistent with the recordkeeping requirements of Section 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

86. For all control device and process operating parameters measured during the initial performance tests, the owners or operators of glass-melting furnaces subject to this subpart may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in Section 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in this part 63, subpart A and in Section 63.1384. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
87. The owner or operator shall conduct a performance test for each existing and new glass-melting furnace. All monitoring systems and equipment must be installed, operational, and calibrated prior to the performance test. Unless a different frequency is specified in this section, the owner or operator must monitor and record process and/or add-on control device parameters at least every 15 minutes during the performance tests. The arithmetic average for each parameter must be calculated using all of the recorded measurements for the parameter. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
88. During each performance test, the owner or operator must monitor and record the glass pull rate for each glass-melting furnace and, if different, the glass pull rate for each rotary spin manufacturing line and flame attenuation manufacturing line. Record the glass pull rate every 15 minutes during any performance test required by this subpart and determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
89. During the performance test, the owner or operator of a glass-melting furnace controlled by an DESP shall monitor and record the DESP parameter level(s), as specified in the operations, maintenance, and monitoring plan, and establish the minimum and/or maximum value(s) that will be used to demonstrate compliance after the initial performance test. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
90. To determine compliance with the PM emission limit for glass-melting furnaces, use the following equation: $E = (C \times Q \times K1)/P$, where: E = Emission rate of PM, kg/Mg (lb/ton) of glass pulled; C = Concentration of PM, g/dscm (gr/dscf); Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h); K1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and P = Average glass pull rate, Mg/h (tons/h). [40 CFR 63, Subpart NNN and 40 CFR 60, Subpart CC] Federally Enforceable Through Title V Permit
91. The owner or operator shall submit the following written initial notifications to the Administrator:(1) Notification of intention to construct a new major source or reconstruct a major source; of the date construction or reconstruction commenced; of the anticipated date of startup; of the actual date of startup, where the initial startup of a new or reconstructed source occurs after June 14, 2002, and for which an application for approval or construction or reconstruction is required (See Section 63.9(b)(4) and (5) of this part);(2) Notification of special compliance obligations;(3) Notification of performance test; and (4) Notification of compliance status. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
92. The owner or operator shall report the results of the initial performance test as part of the notification of compliance status. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
93. The owner or operator shall develop and implement a written plan as described in Section 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in Section 63.6(e)(3), the plan shall include:(i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;(ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and(iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. The owner or operator shall also keep records of each event as required by Section 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in Section 63.10(e)(3)(iv) of this part. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
94. The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

95. The owner or operator shall maintain records of the following information: DESP parameter value(s) used to monitor DESP performance, including any period when the value(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
96. The owner or operator shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in Section 63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-261-3-13

LEGAL OWNER OR OPERATOR: CERTAINTeed CORPORATION
MAILING ADDRESS: 17775 AVENUE 23 1/2
CHOWCHILLA, CA 93610

LOCATION: 17775 AVENUE 23 1/2
CHOWCHILLA, CA 93610

EQUIPMENT DESCRIPTION:

MODIFICATION OF 51 44 MMBTU/HR C-11 PRODUCTION LINE CONSISTING OF FOREHEARTH #1, GLASS FIBERIZER & MAT FORMING, CURING OVEN, MAT COOLING, SLITTING & TRIMMING, FACING, INFRARED DRYER, AND ROLL UP PACKAGING AND CONTROL DEVICES LOWER THE NOX AND SOX DAILY EMISSIONS LIMITS SHARED WITH UNITS -2 AND -4

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) C-261-3-11 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fiberglass production on the C-11 Line shall not exceed 260 metric tons per day and 94,900 metric tons per year. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA and CARB. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment

Seyed Sadredin, Executive Director APCO

DRAFT

DAVID WARNER, Director of Permit Services
C-261-3-13 Sep 25 2012 3:24PM - FUKUDAD Joint Inspection NOT Required

5. With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NO_x established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NO_x at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
6. EPA shall be notified by letter 30 days prior to a production increase in order to make a determination of whether additional performance testing is required. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
7. Only PUC regulated natural gas shall be used. [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
8. A permanent record of daily production shall be maintained and shall be available for inspection by EPA, CARB and the District. [District Rule 2520; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
9. Source tests shall be performed at least on an annual basis and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NO_x, SO_x, and VOC. [District Rule 2520; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
10. PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
11. The source tests for PM shall be performed at the outlet of the two wet ESP's and the final stack. The source tests for NO_x, SO_x, and VOC shall be performed at the final stack. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
12. The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
13. The result of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
14. CertainTeed shall continuously operate and maintain the wet cyclonic scrubbers for the pretreatment of the gas stream upstream of the south wet ESP. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
15. Both the cyclonic scrubbers and the South wet ESP shall be functioning as air pollution abatement devices whenever there is glass production on the C-11 Line. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
16. The North wet ESP shall be functioning as air pollutant abatement device whenever there is glass production on the C-11 Line. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
17. The combined North wet ESP and South wet ESP outlet emissions on C-11 Line shall not exceed 11.8 lbs/hr of PM. [District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
18. Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
19. When fired on propane, the total stack emissions, which result from combining the C-11 dry ESP (PTO C-261-2), C-11 wet ESP and C-12 wet ESP (PTO C-261-4) emissions, shall not exceed 547.2 lb PM/day, 547.2 lb PM₁₀/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,074.7 lb NO_x/day, 322.4 lb SO_x/day, or 1,072.8 lb CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
20. The total stack emissions, which result from combining the C-1 dry ESP (PTO C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 22.8 lb PM/hr or 22.8 lb PM₁₀/hr. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

21. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rules 4201 (12/17/92) and 4202 (12/17/92); and Madera County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
22. The owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled for each existing rotary spin manufacturing line. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
23. The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in Section 63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
24. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
25. The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
26. The owner or operator must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in Section 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
27. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the process parameter(s) is outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
28. The owner or operator must operate the process modifications such that the monitored process parameter(s) is not outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
29. The owner or operator must use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in Section 63.1384. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
30. The owner or operator must use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in Section 63.1384. For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

31. The owner or operator of each wool fiberglass manufacturing facility must prepare for each glass-melting furnace and rotary spin manufacturing line subject to the provisions of this subpart, a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information: Procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in Section 63.1382; Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers' instructions; and Corrective actions to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
32. The owner or operator of an existing glass-melting furnace equipped with continuous glass pull rate monitors must monitor and record the glass pull rate on an hourly basis. For glass-melting furnaces that are not equipped with continuous glass pull rate monitors, the glass pull rate must be monitored and recorded once per day. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
33. The owner or operator who uses process modifications to control formaldehyde emissions must establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
34. The owner or operator must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
35. The owner or operator must include as part of their operations, maintenance, and monitoring plan the following information: Procedures for the proper operation and maintenance of the process; Process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in Section 63.1382; Correlation(s) between process parameter(s) to be monitored and formaldehyde emissions; A schedule for monitoring the process parameter(s); and Recordkeeping procedures, consistent with the recordkeeping requirements of Section 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
36. The owner or operator must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
37. The owner or operator must monitor and record the formulation of each batch of binder used. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
38. The owner or operator must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
39. For all control device and process operating parameters measured during the initial performance tests, the owners or operators of glass-melting furnaces and rotary spin manufacturing lines subject to this subpart may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in Section 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in this part 63, subpart A and in Section 63.1384. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
40. During each performance test, the owner or operator must monitor and record the glass pull rate for each glass-melting furnace and, if different, the glass pull rate for the C-11 rotary spin manufacturing line. Record the glass pull rate every 15 minutes during any performance test required by this subpart and determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
41. The owner or operator must conduct a performance test for the C-11 rotary spin manufacturing line, subject to this subpart, while producing the building insulation with the highest LOI expected to be produced on that line. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT

CONDITIONS CONTINUE ON NEXT PAGE

42. The owner or operator of each rotary spin manufacturing line regulated by this subpart must conduct performance tests using the resin with the highest free-formaldehyde content. During the performance test of each rotary spin manufacturing line regulated by this subpart, the owner or operator shall monitor and record the free-formaldehyde content of the resin, the binder formulation used, and the product LOI and density. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
43. During the performance test, the owner or operator of a rotary spin manufacturing line who plans to use process modifications to comply with the emission limits in Section 63.1382 must monitor and record the process parameter level(s), as specified in the operations, maintenance, and monitoring plan, which will be used to demonstrate compliance after the initial performance test. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
44. Unless disapproved by the Administrator, an owner or operator of a rotary spin or flame attenuation manufacturing line regulated by this subpart may conduct short-term experimental production runs using binder formulations or other process modifications where the process parameter values would be outside those established during performance tests without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Administrator approves a longer period. The owner or operator must notify the Administrator and postmark or deliver the notification at least 15 days prior to commencement of the short-term experimental production runs. The Administrator must inform the owner or operator of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of intent to perform an experimental short-term production run shall include the following information:(i) The purpose of the experimental production run;(ii) The affected line;(iii) How the established process parameters will deviate from previously approved levels;(iv) The duration of the experimental production run;(v) The date and time of the experimental production run; and(vi) A description of any emission testing to be performed during the experimental production run. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
45. To determine compliance with the emission limit for formaldehyde for rotary spin manufacturing lines, use the following equation: $E = (C \times MW \times Q \times K1 \times K2) / (K3 \times P \times 10^6)$, where: E = Emission rate of formaldehyde, kg/Mg (lb/ton) of glass pulled; C = Measured volume fraction of formaldehyde, ppm; MW = Molecular weight of formaldehyde, 30.03 g/g-mol; Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h); K1 = Conversion factor, 1 kg/1,000 g (1 lb/453.6 g); K2 = Conversion factor, 1,000 L/m³ (28.3 L/ft³); K3 = Conversion factor, 24.45 L/g-mol; and P = Average glass pull rate, Mg/h (tons/h). [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
46. The owner or operator shall submit the following written initial notifications to the Administrator:(1) Notification of intention to construct a new major source or reconstruct a major source; of the date construction or reconstruction commenced; of the anticipated date of startup; of the actual date of startup, where the initial startup of a new or reconstructed source occurs after June 14, 2002, and for which an application for approval or construction or reconstruction is required (See Section 63.9(b)(4) and (5) of this part);(2) Notification of special compliance obligations;(3) Notification of performance test; and (4) Notification of compliance status. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
47. The owner or operator shall report the results of the initial performance test as part of the notification of compliance status. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
48. The owner or operator shall develop and implement a written plan as described in Section 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in Section 63.6(e)(3), the plan shall include:(i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;(ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and (iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. The owner or operator shall also keep records of each event as required by Section 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in Section 63.10(e)(3)(iv) of this part. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

49. The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
50. The owner or operator shall maintain records of the following information: the formulation of each binder batch and the LOI and density for each product manufactured on a rotary spin manufacturing line or flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation; Process parameter level(s) for RS and FA manufacturing lines that use process modifications to comply with the emission limits, including any period when the parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
51. The owner or operator shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in Section 63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: C-261-4-11

LEGAL OWNER OR OPERATOR: CERTAINTEED CORPORATION
MAILING ADDRESS: 17775 AVENUE 23 1/2
CHOWCHILLA, CA 93610

LOCATION: 17775 AVENUE 23 1/2
CHOWCHILLA, CA 93610

EQUIPMENT DESCRIPTION:
MODIFICATION OF 27.44 MMBTU/HR C-12 LINE INCLUDING FOREHEARTH #2; FIBERIZER CONTROLLED BY 3 FISHER-KLOSTERMANN (F-K) CYCLONIC SCRUBBERS; COLLECTION & SHREDDING CONTROLLED BY 2 CERTAINTEED CYCLONES/F-K SCRUBBERS/C-12 WET EP; BAGGING CONTROLLED BY BAGHOUSE #2. LOWER THE NOX AND SOX DAILY EMISSIONS LIMITS SHARED WITH UNITS -2 AND -3

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) C-261-4-9 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Fiberglass production on the C-12 Line shall not exceed 260 metric tons per day and 94,900 metric tons per year. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA and CARB. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

DRAFT

DAVID WARNER, Director of Permit Services
C-261-4-11 Sep 25 2012 3 24PM - FUKUDAD Joint Inspection NOT Required

5. With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NO_x established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NO_x at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
6. EPA shall be notified by letter 30 days prior to a production increase in order to make a determination of whether additional performance testing is required. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
7. Only PUC regulated natural gas shall be used. [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
8. A permanent record of daily production shall be maintained and shall be available for inspection by EPA, CARB and the District. [District Rule 2520; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
9. Source tests shall be performed at least on an annual basis and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NO_x, SO_x, and VOC. [District Rules 2201, 4354, and 2520, PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
10. PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
11. The source tests for PM shall be performed at the outlet of the wet ESP and the final stack. The source tests for NO_x, SO_x, and VOC shall be performed at the final stack. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
12. The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
13. The result of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
14. The outlet of the wet ESP and the final stack shall be so fitted as to permit performance of tests for pollutants (per 40 CFR 60, Appendix A) using portable equipment in a manner as approved by the EPA, CARB and the District. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
15. CertainTeed shall continuously operate and maintain the wet cyclonic scrubbers for the pretreatment of the gas stream upstream of the C-12 wet ESP. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
16. Both the cyclonic scrubbers and the C-12 wet ESP shall be functioning as air pollution abatement devices whenever there is glass production on the C-12 Line. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
17. Baghouse shall be functioning as air pollutant abatement device whenever there is glass production on the C-12 Line. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
18. The C-12 wet ESP outlet emissions shall not exceed 4.5 lbs PM/hr nor 108 lb PM/day. [District Rules 2201 and 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
19. Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
20. When fired on propane, the total stack emissions, which result from combining the C-11 dry ESP (PTO C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 547.2 lb PM/day, 547.2 lb PM₁₀/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,074.7 lb NO_x/day, 322.4 lb SO_x/day, or 1,072.8 lb CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit

DRAFT
CONDITIONS CONTINUE ON NEXT PAGE

21. The total stack emissions, which result from combining the C-1 dry ESP (PTO C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 22.8 lb PM/hr or 22.8 lb PM10/hr. [District Rule 2201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
22. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rules 4201 (12/17/92) and 4202 (12/17/92); and Madera County Rule 404. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
23. Particulate matter emissions shall not exceed 2.6 lb/hour, until EPA approves modification to PSD ATC SJ 80-02 to increase the maximum emission rate. Upon EPA approval, particulate matter emissions shall not exceed 4.5 lb/hour. [PSD ATC 80-02] Federally Enforceable Through Title V Permit
24. The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in Section 63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
25. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
26. The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-261-2-25

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

96 MMBTU/HR, 325 METRIC TONS/DAY GLASS MELTING OXY-FUEL FURNACE WITH 12 (8 MMBTU/HR EACH)
COMBUSTION TEC FLAT FLAME BURNERS

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
2. The glass melting furnace shall produce no more than either of the following limits: 325 metric tons/day or 118,625 metric tons/year. A permanent record of daily production and of daily nitrate addition to the furnace shall be maintained and shall be available for inspection by the District, EPA or CARB. [District NSR Rule; District Rule 4354; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
3. All fiberglass shall contain a minimum of 30% by weight post-consumer cullet on an annual average basis. The facility shall maintain records of the annual amount (in tons) of post-consumer cullet used. [District Rule 2201] Federally Enforceable Through Title V Permit
4. With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NOx established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NOx at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
5. EPA shall be notified by letter 30 days prior to the fuel switch or production increase in order to make a determination of whether additional performance testing is required. In the case of an emergency fuel switch, EPA shall be notified by letter postmarked within 15 days of the fuel switch. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
6. The sulfur content of fuel oil shall not exceed 0.0015% by weight. [District NSR Rule; District Rule 4354, Madera County Rule 404] Federally Enforceable Through Title V Permit
7. The rate of fuel oil consumption shall not exceed 570 gal/hr nor 5,000,000 gal/year. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Sulfur content of the fuel oil shall be determined by ASTM Method D-129, D-1552 or the most current method promulgated by ASTM. Other methods may be used if approved by EPA, Region 9 (Attention: A-3-3). [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
9. Certification of the sulfur content of each fuel oil delivery by the supplier will be acceptable; the analytical method used to determine sulfur content must be one of those cited. [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate

10. All natural gas used by the facility shall be PUC regulated. [District NSR Rule; PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
11. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA or CARB. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
12. Source tests shall be performed while operating at design capacity. To determine worst case emissions, the tests shall be performed while firing on natural gas, and separately while firing 0.0015% sulfur backup fuel oil. With prior EPA and District approval, source testing may be performed as otherwise provided. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
13. Source tests shall be performed at least on an annual basis, but not more than once every 18 months or sooner than every 6 months and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NO_x, SO_x, and VOC. [District Rule 2520, 9.4.2; and Rule 4354, 6.3; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
14. Source testing for NO_x from the final stack shall be performed under normal operating conditions at the time of the test. Testing shall be performed in the presence of nitrate additive if daily records indicate that nitrate is routinely used in the furnace during the period immediately prior to the test. If nitrate use is discontinued by the facility during normal operations, NO_x source testing shall be performed without nitrate additive in the furnace. [District Rule 2201] Federally Enforceable Through Title V Permit
15. PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [District NSR Rule; District Rule 4202; District Rule 2520, 9.4.2; PSD ATC SJ 80-02; and 40 CFR 60 Subpart CC] Federally Enforceable Through Title V Permit
16. Source tests for PM shall be performed at the outlet of the dry ESP, the outlet of the three wet ESP's and the final stack. The source tests for NO_x, SO_x, and VOC shall be performed at the final stack. [District NSR Rule; District Rule 4202; and Rule 2520, 9.4.2; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
17. The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
19. The outlets of the dry ESP and the final stack shall be so fitted as to permit performance of tests for pollutants (per 40 CFR 60, Appendix A) using portable equipment in a manner as approved by the EPA, CARB and the District. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The applicant shall maintain and operate CEM to measure stack gas NO_x concentration (per 40 CFR 60.13 and 40 CFR, Appendix B, Performance Spec. 2; and 40 CFR 60 Appendix F) and stack gas volumetric flow rate (per 40 CFR Part 52, Appendix E). [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
21. The applicant shall maintain and operate an opacity CEMS in the final stack to continuously measure the opacity of stack emissions. The opacity CEMS shall meet EPA specs. (40 CFR 60.13; and 40 CFR 60, Appendix B, Performance Specification 1) [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
22. The facility shall maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
23. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
24. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
26. CertainTeed Corporation shall submit to EPA (Attention: Air-5) a written report of all excess emissions for each calendar quarter. The report shall include the conditions specified in EPA Permit Special Conditions IX.J.4. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
27. CertainTeed shall continuously operate and maintain the caustic soda injection system for the pretreatment of the glass furnace gas stream upstream of the dry ESP. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
28. Both the caustic soda injection system (scrubber) and the dry electrostatic precipitator shall be functioning as air pollution abatement devices whenever the glass melting furnace is in operation. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
29. Dry Electrostatic Precipitator (ESP) outlet emissions shall not exceed 8.4 lbs PM/hr. [District NSR Rule; District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
30. When the furnace is heated with LPG/propane, final stack emissions shall not exceed 547.2 lb PM/day, 547.2 lb PM10/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,341.6 lb NOx/day, 1,296.0 lb SOx/day, or 1,072.8 lb CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
31. When the furnace is heated with natural gas, final stack emissions shall not exceed 22.8 lb PM/hr, 22.8 lb PM10/hr, 18.0 lb HC/hr, 18.0 lb VOC/hr, 55.9 lb NOx/hr, 24.3 lb SOx/hr, nor 44.7 lb CO/hr. [District NSR Rule; District Rule 4354; District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
32. When the furnace is heated with fuel oil, final stack emissions shall not exceed 22.8 lb PM/hr, 22.8 lb PM10/hr, 18.0 lb HC/hr, 18.0 lb VOC/hr, 40.0 lb NOx/hr, 54.0 lb SOx/hr, nor 44.7 lb CO/hr. [District NSR Rule; District Rule 4354; District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
33. During any day when nitrate is used in the furnace, final stack emissions shall not exceed 4.0 lb-NOx/short ton of glass pulled on a block 24-hour average. During any day when nitrate is not used in the furnace, final stack emissions shall not exceed 1.45 lb-NOx/short ton of glass pulled on a block 24-hour average. These emission limits shall not apply during periods of startup, shutdown, or idling, provided the facility complies with the requirements of Rule 4354, Sections 5.5, 5.6, 5.7, and 6.7. [District NSR Rule and 4354] Federally Enforceable Through Title V Permit
34. Emissions from the glass melting furnace shall not exceed any of the emission limits of District Rule 4354, as follows: 4.0 lb NOx/ short ton of glass pulled on a block 24-hour average, 1.0 lb CO/short ton of glass pulled as averaged over a three hour period, or 0.25 lb VOC/short ton of glass pulled as averaged over a three hour period. These emission limits shall not apply during periods of startup, shutdown, or idling, provided the facility complies with the requirements of Rule 4354, Sections 5.5, 5.6, 5.7, and 6.7. [District Rule 4354, 5.1, 5.2] Federally Enforceable Through Title V Permit
35. Source testing to measure NOx, SOx, PM, CO, and VOC emissions from this unit shall be conducted while firing on fuel oil when this unit is fired on fuel oil during the previous 12 months from the date of the proposed source test. After demonstrating compliance on two consecutive annual source tests when the unit is fired on fuel oil, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emissions limits, the source testing frequency shall revert to at least once every 12 months. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
37. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Parametric Monitoring System which continuously measures and records the furnace oxygen/fuel ratio. [District Rules 1080 and 4354] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

38. The continuous parametric monitors specified in these permit conditions shall be installed, calibrated and operational prior to the next furnace source test. After the next furnace source test, the detection range of the Continuous Parametric Monitoring System shall be adjusted as necessary to accurately measure the resulting range of furnace oxygen/fuel ratio. [District Rule 2201] Federally Enforceable Through Title V Permit
39. The furnace oxygen/fuel ratio shall be greater than 1.7 to 1. [District Rule 2201] Federally Enforceable Through Title V Permit
40. Normal range for the furnace oxygen/fuel ratio shall be re-established during each source test required by this permit. [District Rule 2201] Federally Enforceable Through Title V Permit
41. Results of the Continuous Parametric Monitoring System system shall be logged in one hour intervals for furnace oxygen/fuel ratio. [District Rule 1080] Federally Enforceable Through Title V Permit
42. The owner or operator shall submit a written report of furnace oxygen/fuel ratio Continuous Parametric Monitoring System operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess oxygen/fuel ratio, nature and the cause of excess (if known), corrective actions taken and preventative measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the furnace oxygen/fuel ratio test period and used to determine compliance with the furnace oxygen/fuel ratio standard; Applicable time and date of each period during which the Continuous Parametric Monitoring System was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080] Federally Enforceable Through Title V Permit
43. CertainTeed Corporation shall maintain and operate the following continuous emissions monitoring systems (CEMS) in the final stack: (1) a CEMS to measure stack gas NO_x concentrations; (2) a CEMS to measure stack gas volumetric flow rates [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
44. The NO_x CEMS shall meet EPA monitoring performance specifications (40 CFR 60.13, 40 CFR 60, Appendix B, Performance Specification 2; and 40 CFR 60, Appendix F). [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
45. The volumetric flow rate CEMS shall meet EPA monitoring performance specifications (40 CFR 52, Appendix E). [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
46. In the quarterly excess emission reports, CertainTeed Corporation shall report all dates and times when process gases are vented to the bypass stack, CertainTeed Corporation shall also report the reason for each instance of venting to the bypass stack. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rules 4201 (12/17/92) and 4202 (12/17/92); and Madera County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
48. A record of each fuel consumption shall be maintained, kept onsite for at least five years and made available for inspection by EPA, CARB and the District upon request. [District 2520, 9.4.2] Federally Enforceable Through Title V Permit
49. Source shall be in compliance with all requirements of District Rule 4354 by the end of startup as prescribed in Section 7.1 of District Rule 4354. [District Rule 4354] Federally Enforceable Through Title V Permit
50. Furnace shutdown shall not exceed 20 days, measured from the time furnace operations drop below the idle thresholds specified in Section 3.17 of District Rule 4354 to when all emissions from the furnace cease. [District Rule 4354] Federally Enforceable Through Title V Permit
51. NO_x, CO and VOC emissions during idling shall not exceed the emissions limits as calculated in Section 5.7.2 of District Rule 4354. [District Rule 4354] Federally Enforceable Through Title V Permit
52. Any source testing result, CEMS, or alternate emission monitoring method averaged value exceeding the applicable emission limits in Section 5.1, Section 5.2, Section 5.3, or Section 5.4 shall constitute a violation of the rule. [District Rule 4354] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

53. Permittee shall comply with Section 5.5 during startup. Startup exemption time shall not exceed 40 days, starting from the time of primary combustion system activation. [District Rule 4354] Federally Enforceable Through Title V Permit
54. Effective at the end of the startup period, emissions from the glass melting furnace shall not exceed the emission limits of District Rule 4354, as follows: 4.0 lb NO_x/short ton of glass pulled on a block 24-hour average, 1.0 lb CO/short ton of glass pulled as averaged over a three hour period in accordance with the applicable test methods in Section 6.5.1, 6.5.2 of District Rule 4354, and 0.25 lb VOC/short ton of glass pulled as averaged over a three hour period in accordance with the applicable test methods in Section 6.5.3 of District Rule 4354. [District Rule 4354] Federally Enforceable Through Title V Permit
55. The emission control systems (ECS) shall be in operation whenever technologically feasible during startup, idling and shutdown conditions. [District Rule 4354] Federally Enforceable Through Title V Permit
56. During startup, the stoichiometric ratio of the primary furnace combustion system shall not exceed 5% oxygen as calculated from the actual fuel and oxidant flow measurements for combustion in the furnace. [District Rule 4354] Federally Enforceable Through Title V Permit
57. Operator shall maintain daily records of the total hours of operation, type and quantity of fuel used in the furnace, the quantity of glass pulled from the furnace, NO_x emission rate in lb/ton of glass pulled. Operator shall maintain records of source tests and operating parameters established during initial source test, maintenance and repair, malfunction, and idling, start-up and shutdown. [District Rule 4354] Federally Enforceable Through Title V Permit
58. The operator shall retain the records specified in this permit for a period of five years, make them available on site during normal business hours to the APCO, ARB, or EPA, and submit them to the APCO, ARB, or EPA upon request. [District Rule 4354] Federally Enforceable Through Title V Permit
59. Excess emissions indicated by the CEM system shall be considered violations of the applicable emissions limits for the purposes of this permit. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
60. The owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of filterable particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled for each new or existing glass-melting furnace. [40 CFR 63, Subpart NNN and 40 CFR 60, Subpart CC] Federally Enforceable Through Title V Permit
61. The owner or operator must initiate corrective action within 1 hour when any 3-hour block average of the monitored dry electrostatic precipitator (DESP) parameter is outside the limit(s) established during the performance test as specified in Section 63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
62. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64 subpart D when the monitored DESP parameter is outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
63. The owner or operator must operate the DESP such that the monitored DESP parameter is not outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
64. The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in Section 63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
65. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate

66. The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
67. The owner or operator of each wool fiberglass manufacturing facility must prepare for each glass-melting furnace, rotary spin manufacturing line a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information: Procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in Section 63.1382; Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers's instructions; and Corrective actions to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
68. The owner or operator must monitor the DESP according to the procedures in the operations, maintenance, and monitoring plan. The operations, maintenance, and monitoring plan for the ESP must contain the following information: The ESP operating parameter(s), such as secondary voltage of each electrical field, to be monitored and the minimum and/or maximum value(s) that will be used to identify any operational problems; A schedule for monitoring the ESP operating parameter(s); Recordkeeping procedures, consistent with the recordkeeping requirements of Section 63.1386, to show that the ESP operating parameter(s) is within the limit(s) established during the performance test; and Procedures for the proper operation and maintenance of the ESP. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
69. The owner or operator of an existing glass-melting furnace equipped with continuous glass pull rate monitors must monitor and record the glass pull rate on an hourly basis. For glass-melting furnaces that are not equipped with continuous glass pull rate monitors, the glass pull rate must be monitored and recorded once per day. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
70. The owner or operator must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
71. The owner or operator must include as part of their operations, maintenance, and monitoring plan the following information: Procedures for the proper operation and maintenance of the process; Process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in Section 63.1382; Correlation(s) between process parameter(s) to be monitored and formaldehyde emissions; A schedule for monitoring the process parameter(s); and Recordkeeping procedures, consistent with the recordkeeping requirements of Section 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
72. For all control device and process operating parameters measured during the initial performance tests, the owners or operators of glass-melting furnaces subject to this subpart may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in Section 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in this part 63, subpart A and in Section 63.1384. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
73. The owner or operator shall conduct a performance test for each existing and new glass-melting furnace. All monitoring systems and equipment must be installed, operational, and calibrated prior to the performance test. Unless a different frequency is specified in this section, the owner or operator must monitor and record process and/or add-on control device parameters at least every 15 minutes during the performance tests. The arithmetic average for each parameter must be calculated using all of the recorded measurements for the parameter. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate

74. During each performance test, the owner or operator must monitor and record the glass pull rate for each glass-melting furnace and, if different, the glass pull rate for each rotary spin manufacturing line and flame attenuation manufacturing line. Record the glass pull rate every 15 minutes during any performance test required by this subpart and determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
75. During the performance test, the owner or operator of a glass-melting furnace controlled by an DESP shall monitor and record the DESP parameter level(s), as specified in the operations, maintenance, and monitoring plan, and establish the minimum and/or maximum value(s) that will be used to demonstrate compliance after the initial performance test. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
76. To determine compliance with the PM emission limit for glass-melting furnaces, use the following equation: $E = (C \times Q \times K1)/P$, where: E = Emission rate of PM, kg/Mg (lb/ton) of glass pulled; C = Concentration of PM, g/dscm (gr/dscf); Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h); K1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and P = Average glass pull rate, Mg/h (tons/h). [40 CFR 63, Subpart NNN and 40 CFR 60, Subpart CC] Federally Enforceable Through Title V Permit
77. The owner or operator shall submit the following written initial notifications to the Administrator: (1) Notification of intention to construct a new major source or reconstruct a major source; of the date construction or reconstruction commenced; of the anticipated date of startup; of the actual date of startup, where the initial startup of a new or reconstructed source occurs after June 14, 2002, and for which an application for approval or construction or reconstruction is required (See Section 63.9(b)(4) and (5) of this part); (2) Notification of special compliance obligations; (3) Notification of performance test; and (4) Notification of compliance status. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
78. The owner or operator shall report the results of the initial performance test as part of the notification of compliance status. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
79. The owner or operator shall develop and implement a written plan as described in Section 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in Section 63.6(e)(3), the plan shall include: (i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; (ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and (iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. The owner or operator shall also keep records of each event as required by Section 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in Section 63.10(e)(3)(iv) of this part. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
80. The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
81. The owner or operator shall maintain records of the following information: DESP parameter value(s) used to monitor DESP performance, including any period when the value(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

82. The owner or operator shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in Section 63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-261-3-12

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

51 44 MMBTU/HR C-11 PRODUCTION LINE CONSISTING OF FOREHEARTH #1, GLASS FIBERIZER & MAT FORMING, CURING OVEN, MAT COOLING, SLITTING & TRIMMING, FACING, INFRARED DRYER, AND ROLL UP PACKAGING AND CONTROL DEVICES

PERMIT UNIT REQUIREMENTS

1. Fiberglass production on the C-11 Line shall not exceed 260 metric tons per day and 94,900 metric tons per year. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA and CARB. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
2. With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NOx established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NOx at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
3. EPA shall be notified by letter 30 days prior to a production increase in order to make a determination of whether additional performance testing is required. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
4. Only PUC regulated natural gas shall be used. [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
5. A permanent record of daily production shall be maintained and shall be available for inspection by EPA, CARB and the District. [District Rule 2520, 9.4.2; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
6. Source tests shall be performed at least on an annual basis and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NOx, SOx, and VOC. [District Rule 2520, 9.4.2; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
7. PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
8. The source tests for PM shall be performed at the outlet of the two wet ESP's and the final stack. The source tests for NOx, SOx, and VOC shall be performed at the final stack. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
9. The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
10. The result of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

11. CertainTeed shall continuously operate and maintain the wet cyclonic scrubbers for the pretreatment of the gas stream upstream of the south wet ESP. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
12. Both the cyclonic scrubbers and the South wet ESP shall be functioning as air pollution abatement devices whenever there is glass production on the C-11 Line. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
13. The North wet ESP shall be functioning as air pollutant abatement device whenever there is glass production on the C-11 Line. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
14. The combined North wet ESP and South wet ESP outlet emissions on C-11 Line shall not exceed 11.8 lbs/hr of PM. [District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
15. Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
16. When fired on propane, the total stack emissions, which result from combining the C-1 dry ESP (PTO #C-261-2), C-11 wet ESP and C-12 wet ESP (PTO C-261-4) emissions, shall not exceed 547.2 lb PM/day, 547.2 lb PM10/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,341.6 lb NOx/day, 1,296.0 lb SOx/day, or 1,072.8 lb CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The total stack emissions, which result from combining the C-1 dry ESP (PTO C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 22.8 lb PM/hr or 22.8 lb PM10/hr. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
18. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rules 4201 (12/17/92) and 4202 (12/17/92); and Madera County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
19. The owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled for each existing rotary spin manufacturing line. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
20. The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in Section 63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
21. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
22. The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
23. The owner or operator must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in Section 63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
24. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the process parameter(s) is outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

25. The owner or operator must operate the process modifications such that the monitored process parameter(s) is not outside the limit(s) established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
26. The owner or operator must use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in Section 63.1384. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
27. The owner or operator must use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in Section 63.1384. For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
28. The owner or operator of each wool fiberglass manufacturing facility must prepare for each glass-melting furnace and rotary spin manufacturing line subject to the provisions of this subpart, a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information: Procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in Section 63.1382; Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturers' instructions; and Corrective actions to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
29. The owner or operator of an existing glass-melting furnace equipped with continuous glass pull rate monitors must monitor and record the glass pull rate on an hourly basis. For glass-melting furnaces that are not equipped with continuous glass pull rate monitors, the glass pull rate must be monitored and recorded once per day. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
30. The owner or operator who uses process modifications to control formaldehyde emissions must establish a correlation between formaldehyde emissions and a process parameter(s) to be monitored. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
31. The owner or operator must monitor the established parameter(s) according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
32. The owner or operator must include as part of their operations, maintenance, and monitoring plan the following information: Procedures for the proper operation and maintenance of the process; Process parameter(s) to be monitored to demonstrate compliance with the applicable emission limits in Section 63.1382; Correlation(s) between process parameter(s) to be monitored and formaldehyde emissions; A schedule for monitoring the process parameter(s); and Recordkeeping procedures, consistent with the recordkeeping requirements of Section 63.1386, to show that the process parameter value(s) established during the performance test is not exceeded. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
33. The owner or operator must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
34. The owner or operator must monitor and record the formulation of each batch of binder used. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
35. The owner or operator must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate

36. For all control device and process operating parameters measured during the initial performance tests, the owners or operators of glass-melting furnaces and rotary spin manufacturing lines subject to this subpart may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in Section 63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in this part 63, subpart A and in Section 63.1384. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
37. During each performance test, the owner or operator must monitor and record the glass pull rate for each glass-melting furnace and, if different, the glass pull rate for the C-11 rotary spin manufacturing line. Record the glass pull rate every 15 minutes during any performance test required by this subpart and determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
38. The owner or operator must conduct a performance test for the C-11 rotary spin manufacturing line, subject to this subpart, while producing the building insulation with the highest LOI expected to be produced on that line. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
39. The owner or operator of each rotary spin manufacturing line regulated by this subpart must conduct performance tests using the resin with the highest free-formaldehyde content. During the performance test of each rotary spin manufacturing line regulated by this subpart, the owner or operator shall monitor and record the free-formaldehyde content of the resin, the binder formulation used, and the product LOI and density. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
40. During the performance test, the owner or operator of a rotary spin manufacturing line who plans to use process modifications to comply with the emission limits in Section 63.1382 must monitor and record the process parameter level(s), as specified in the operations, maintenance, and monitoring plan, which will be used to demonstrate compliance after the initial performance test. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
41. Unless disapproved by the Administrator, an owner or operator of a rotary spin or flame attenuation manufacturing line regulated by this subpart may conduct short-term experimental production runs using binder formulations or other process modifications where the process parameter values would be outside those established during performance tests without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Administrator approves a longer period. The owner or operator must notify the Administrator and postmark or deliver the notification at least 15 days prior to commencement of the short-term experimental production runs. The Administrator must inform the owner or operator of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of intent to perform an experimental short-term production run shall include the following information:(i) The purpose of the experimental production run;(ii) The affected line;(iii) How the established process parameters will deviate from previously approved levels;(iv) The duration of the experimental production run;(v) The date and time of the experimental production run; and(vi) A description of any emission testing to be performed during the experimental production run. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
42. To determine compliance with the emission limit for formaldehyde for rotary spin manufacturing lines, use the following equation: $E = (C \times MW \times Q \times K1 \times K2) / (K3 \times P \times 10^6)$, where: E = Emission rate of formaldehyde, kg/Mg (lb/ton) of glass pulled; C = Measured volume fraction of formaldehyde, ppm; MW = Molecular weight of formaldehyde, 30.03 g/g-mol; Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h); K1 = Conversion factor, 1 kg/1,000 g (1 lb/453.6 g); K2 = Conversion factor, 1,000 L/m³ (28.3 L/ft³); K3 = Conversion factor, 24.45 L/g-mol; and P = Average glass pull rate, Mg/h (tons/h). [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

43. The owner or operator shall submit the following written initial notifications to the Administrator:(1) Notification of intention to construct a new major source or reconstruct a major source; of the date construction or reconstruction commenced; of the anticipated date of startup; of the actual date of startup, where the initial startup of a new or reconstructed source occurs after June 14, 2002, and for which an application for approval or construction or reconstruction is required (See Section 63.9(b)(4) and (5) of this part);(2) Notification of special compliance obligations;(3) Notification of performance test; and (4) Notification of compliance status. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
44. The owner or operator shall report the results of the initial performance test as part of the notification of compliance status. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
45. The owner or operator shall develop and implement a written plan as described in Section 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in Section 63.6(e)(3), the plan shall include:(i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;(ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and (iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. The owner or operator shall also keep records of each event as required by Section 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in Section 63.10(e)(3)(iv) of this part. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
46. The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
47. The owner or operator shall maintain records of the following information: the formulation of each binder batch and the LOI and density for each product manufactured on a rotary spin manufacturing line or flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation; Process parameter level(s) for RS and FA manufacturing lines that use process modifications to comply with the emission limits, including any period when the parameter level(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected; and Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
48. The owner or operator shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in Section 63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-261-4-10

EXPIRATION DATE: 05/31/2016

EQUIPMENT DESCRIPTION:

27 44 MMBTU/HR C-12 LINE INCLUDING FOREHEARTH #2; FIBERIZER CONTROLLED BY 3 FISHER-KLOSTERMANN (F-K) CYCLONIC SCRUBBERS, COLLECTION & SHREDDING CONTROLLED BY 2 CERTAINTeed CYCLONES/F-K SCRUBBERS/C-12 WET EP, BAGGING CONTROLLED BY BAGHOUSE #2

PERMIT UNIT REQUIREMENTS

1. Fiberglass production on the C-12 Line shall not exceed 260 metric tons per day and 94,900 metric tons per year. A permanent record of daily production shall be maintained and shall be available for inspection by the District, EPA and CARB. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
2. With approval from EPA, CertainTeed Corporation may choose to conduct performance tests at production and firing rates less than maximum design capacity and may choose to test only the fuel expected to be used in the next 12-month time period, provided that actual plant production does not exceed the tested rate and provided that only the fuel for which tests have been performed is used. The emission rate for NOx established by the first test at the specific production rate (less than maximum plant capacity) shall become the applicable emission limit for NOx at the production rate tested, as in condition IX.B of PSD permit SJ 80-02. A fuel switch or an increase in production levels beyond the maximum tested rate for any product line requires approval by EPA prior to such production increases or fuel switch and may require additional performance testing. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
3. EPA shall be notified by letter 30 days prior to a production increase in order to make a determination of whether additional performance testing is required. [PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
4. Only PUC regulated natural gas shall be used. [PSD ATC SJ 80-02; Madera County Rule 404] Federally Enforceable Through Title V Permit
5. A permanent record of daily production shall be maintained and shall be available for inspection by EPA, CARB and the District. [District Rule 2520, 9.4.2; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
6. Source tests shall be performed at least on an annual basis and at such other times as may be specified by the District or EPA. Tests shall comply with the procedures in 40 CFR (Part 60.8) for PM, NOx, SOx, and VOC. [District NSR Rule; District Rule 4354, 6.3; District Rule 2520, 9.4.2; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
7. PM shall be sampled according to the modified version of EPA's Method 5 which includes the impinger catch. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
8. The source tests for PM shall be performed at the outlet of the wet ESP and the final stack. The source tests for NOx, SOx, and VOC shall be performed at the final stack. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
9. The District and EPA (Attention: Air-5) shall be notified in writing 30 days in advance of the scheduled tests dates to allow time for the development of an approvable source test plan and to arrange for an observer to be present at the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
10. The result of each source test shall be submitted to the District and EPA, Region 9 (Attention: Air-5) within 60 days after the test. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

11. The outlet of the wet ESP and the final stack shall be so fitted as to permit performance of tests for pollutants (per 40 CFR 60, Appendix A) using portable equipment in a manner as approved by the EPA, CARB and the District. [District Rule 1081; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
12. CertainTeed shall continuously operate and maintain the wet cyclonic scrubbers for the pretreatment of the gas stream upstream of the C-12 wet ESP. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
13. Both the cyclonic scrubbers and the C-12 wet ESP shall be functioning as air pollution abatement devices whenever there is glass production on the C-12 Line. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
14. Baghouse #2 shall be functioning as air pollutant abatement device whenever there is glass production on the C-12 Line. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
15. The C-12 wet ESP outlet emissions shall not exceed 4.5 lbs PM/hr nor 108 lb PM/day. [District NSR Rule; District Rule 4202; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
16. Natural gas and propane consumption shall not exceed 3.55 million cubic feet per day and 1.295 trillion Btu in any 12 month period. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
17. When fired on propane, the total stack emissions, which result from combining the C-1 dry ESP (PTO #C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 547.2 lb PM/day, 547.2 lb PM₁₀/day, 432.0 lb HC/day, 432.0 lb VOC/day, 1,341.6 lb NO_x/day, 1,296.0 lb SO_x/day, or 1,072.8 lb CO/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The total stack emissions, which result from combining the C-1 dry ESP (PTO C-261-2), C-11 wet ESP (PTO C-261-3) and C-12 wet ESP emissions, shall not exceed 22.8 lb PM/hr or 22.8 lb PM₁₀/hr. [District NSR Rule; PSD ATC SJ 80-02] Federally Enforceable Through Title V Permit
19. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rules 4201 (12/17/92) and 4202 (12/17/92); and Madera County Rule 404. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
20. Particulate matter emissions shall not exceed 2.6 lb/hour, until EPA approves modification to PSD ATC SJ 80-02 to increase the maximum emission rate. Upon EPA approval, particulate matter emissions shall not exceed 4.5 lb/hour. [PSD ATC 80-02] Federally Enforceable Through Title V Permit
21. The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in Section 63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
22. The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit
23. The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in Section 63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period. [40 CFR 63, Subpart NNN] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

DRAFT

APPENDIX C

SO_x and PM₁₀ Parametric Monitoring Proposal

RECEIVED

DEC 16 2010

Permits Srvc
SJVAPCD

December 14, 2010

David Warner
Director of Permit Services
San Joaquin Valley APCD
1990 East Gettysburg Avenue
Fresno, CA 93726-0244

Gerardo Rios
USEPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

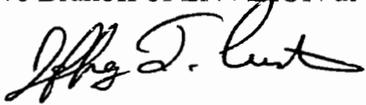
Re: Rule 4354 SO_x and PM₁₀ Monitoring

Dear Messrs. Warner and Rios:

CertainTeed Corporation maintains a glass production facility in Chowchilla, California that is subject to Rule 4354 ("Glass Melting Furnaces.") This rule contains a pending requirement that monitoring of SO_x and PM₁₀ must be performed either using a Continuous Emissions Monitoring System (CEMS) or using parametric monitoring that satisfies the requirements of the rule. Compliance with these new monitoring requirements is required by January 1, 2011.

The Chowchilla plant has one oxy-fuel glass furnace. CertainTeed proposes to use parametric monitoring to show compliance with the Rule 4354 SO_x and PM₁₀ limits. The Chowchilla facility employs an integrated pollution control system that controls both SO_x and PM₁₀. This system is comprised of a Caustic Soda Injection System followed by a Dry Electrostatic Precipitator. The details of the proposed parametric monitoring approach are outlined in Attachment 1 to this letter. Rule 4354 requires that SO_x and PM₁₀ parametric monitoring used for Rule 4354 compliance must be approved by the District and by USEPA. *With this letter, CertainTeed requests District and USEPA approval of the attached SO_x and PM₁₀ parametric monitoring methodology for the purpose of complying with Rule 4354.*

We appreciate your consideration. Please feel free to contact me at (559) 665-4831 x326 or contact Steve Branoff of ENVIRON at (510) 420-2540 with questions regarding this matter.

Sincerely,
Jeff Curtin 
Principal Process Engineer/Environmental

Cc: Steve Branoff, ENVIRON
Enclosures

Attachment 1
CertainTeed Corporation
SJVAPCD Rule 4354 Compliance
Proposed Caustic Soda Injection System Parametric Monitoring

Sections 5.9.3 and 5.9.4 of District Rule 4354 requires that by January 1, 2011, a glass furnace operator subject to the SO_x and PM₁₀ limits in this rule must employ a CEMS or request approval of parametric monitoring. Approval of specific key system operating parameters, monitoring frequency, and recording frequency used for compliance with Rule 4354 SO_x and PM₁₀ limits is required to be obtained from the District and USEPA. Acceptable ranges for key system operating parameters are also required to be demonstrated through a source test.

Section 6.6.2 of this rule requires that an approved SO_x or PM₁₀ parametric monitoring approach must comply with the following requirements:

- 40 CFR 64 (Compliance Assurance Monitoring); and
- 40 CFR 60.13 (Monitoring Requirements).

CertainTeed will comply with the applicable portions of 40 CFR 60.13. Several of the provisions of this regulation do not apply since these relate to compliance with Performance Specifications in 40 CFR 60, Appendices B and F. These two appendices currently contain only requirements for continuous emissions monitoring systems. At the time of this submittal, neither of these appendices contains requirements for continuous parametric monitoring systems. CertainTeed will comply with the requirement to have monitoring systems installed and operational prior to performing performance testing, and with the requirements related to data collection and averaging.

The following sections contain the proposed parametric monitoring approach for determining compliance with the applicable Rule 4354 SO_x and PM₁₀ limits. This proposal has been prepared consistent with the approach recommended under USEPA guidance for Compliance Assurance Monitoring (CAM) plans prepared pursuant to 40 CFR Part 64.

**Compliance with 40 CFR 64 (Compliance Assurance Monitoring)
 Dry Electrostatic Precipitator (Dry EP)**

USEPA’s Compliance Assurance Monitoring (CAM) rule contains requirements for certain large units subject to the periodic monitoring requirements of the Title V program. Since Rule 4354 requires that a proposed parametric monitoring approach for PM₁₀ must comply with CAM, a proposed plan has been prepared consistent with the format outlined in USEPA’s *Technical Guidance Document on Compliance Assurance Monitoring* (August 1998).

I. Background

A. Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulation:	SJVAPCD Rule 4354
Emission Limits:	SOx: 0.90 lb/ton (rolling 24-hour average) PM ₁₀ : 0.50 lb/ton (block 24-hour average)
Existing Monitoring Requirements:	Annual stack testing, Parametric monitoring to comply with 40 CFR Part 63, Subpart NNN

B. Control Technology

Dry electrostatic precipitator (Dry EP)

II. Proposed Monitoring Approach

<u>A. Indicator</u>	Dry EP voltage
Measurement Approach	Dry EP voltage is monitoring used a voltmeter

<u>B. Indicator Range</u>	An excursion is defined as Dry EP voltage less than 1,800 kV for more than 6 minutes, continuously. Excursions trigger an inspection, corrective action and a reporting requirement
<u>C. Performance Criteria</u>	
Data Representativeness	The voltmeter is part of the Dry EP design and has a minimum accuracy of ± 100 kV
Verification of Operational Status	NA
QA/QC Practices and Criteria	Confirm voltmeter reading is zero when not operating (at least on a semi-annual basis)
Monitoring Frequency	Continuous
Data Collection Procedures	Automatically recorded twice per minute, manually recorded twice per shift
Averaging Period	6-minute average

III. Justification

A. Rationale for Selection of Performance Indicators

In a Dry EP, electric fields are established by applying a direct-current voltage across a pair of electrodes: a discharge electrode and a collection electrode. Particulate matter suspended in the gas stream is electrically charged by passing through the electric field around each discharge electrode (the negatively charged electrode). The negatively charged particles then migrate toward the positively charged collection electrodes. The particulate matter is separated from the gas stream by retention on the collection electrode.

A rapping system removes collected particulate matter from the collection plates. Collection hoppers are bins located directly below the collection plates to temporarily store the collected PM until it can be disposed. The Dry EP voltage was selected as a performance indicator because the voltage drops when a malfunction, such as grounded electrodes, occurs in the Dry EP. When the voltage drops, less particulate is charged and collected.

B. Rationale for Selection of Indicator Ranges

The selected indicator level is a voltage of greater than 1,8000 kV. An excursion is defined as any period during which the voltage is less than 1,8000 kV for more than 6 minutes, continuously. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

The indicator range for the Dry EP voltage was selected based upon the level maintained during normal operation and during the performance test. The normal operating voltage is set at the highest level achievable without having an excessive spark rate. Based on field experience, voltage levels less than the proposed indicator level during normal operation result in unacceptable opacity readings. During abnormal operation or a malfunction (such as grounded electrodes), the Dry EP kV levels are appreciably lower than normal operational levels. A time interval of 6 minutes was chosen to account for the routine 2-minute flush cycles the Dry EP undergoes, which cause the voltage to drop below the proposed indicator level. Data obtained during the most recent performance test confirmed the unit was in compliance with Rule 4354 emission limits.

Compliance with 40 CFR 64 (Compliance Assurance Monitoring) Caustic Soda Injection System

USEPA's Compliance Assurance Monitoring (CAM) rule contains requirements for certain large units subject to the periodic monitoring requirements of the Title V program. Since Rule 4354 requires that a proposed parametric monitoring approach for SO_x must comply with CAM, a proposed plan has been prepared consistent with the format outlined in USEPA's *Technical Guidance Document on Compliance Assurance Monitoring* (August 1998).

I. Background

A. Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulation:	SJVAPCD Rule 4354
Emission Limits:	SO _x : 0.90 lb/ton (rolling 24-hour average) PM ₁₀ : 0.50 lb/ton (block 24-hour average)
Existing Monitoring Requirements:	Annual stack testing Parametric monitoring to comply with 40 CFR Part 63, Subpart NNN

B. Control Technology Caustic Soda Injection System

II. Proposed Monitoring Approach

<u>A. Indicator</u>	Liquid flow rate and liquid specific gravity
Measurement Approach	Liquid flow rate and specific gravity will be monitored to ensure that proper control of SO _x and PM ₁₀ emissions is achieved

<u>B. Indicator Range</u>	An excursion is defined as liquid flow rate below 0.5 gal/min or liquid specific gravity below 1.01. Excursions trigger an inspection, corrective action and a reporting requirement
<u>C. Performance Criteria</u>	
Data Representativeness	Measurements of liquid flow rate and specific gravity are made within the caustic soda injection system to ensure proper control
Verification of Operational Status	NA
QA/QC Practices and Criteria	Weekly zero check and quarterly upscale pressure check of transmitter
Monitoring Frequency	Water flow and specific gravity are each measured continuously
Data Collection Procedures	Data are recorded every 3 hours
Averaging Period	Daily

III. Justification

A. Rationale for Selection of Performance Indicators

The selected indicators (water flow and specific gravity) are representative of proper operational performance of the caustic soda injection system used for SO_x and PM₁₀ control from the furnace. Minimum water flow is required to ensure adequate scrubbing of exhaust gas through gas-to-liquid contact. Minimum specific gravity is required to ensure reactivity of acid gas with caustic solution.

B. Rationale for Selection of Indicator Ranges

The selected indicator ranges ensure proper operational performance of the caustic soda injection system used for SO_x and PM₁₀ control from the furnace. The ranges are recommended by the caustic soda injection system manufacturer and have been demonstrated in numerous stack tests to achieve SO_x emissions below the pending Rule 4354 limit. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.