



JUN 02 2014

Mr. Mirko Muller  
Saint-Gobain Containers, Inc  
P.O. Box 4200  
Muncie, IN 47307-4200

**Re: Proposed Authority to Construct/Certificate of Conformity (Minor Mod)  
District Facility # C-801  
Project # C-1141089**

Dear Mr. Muller:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The applicant proposes to add five bin vent dust collectors to existing equipment in the raw material handling batch house listed in permit C-801-3.

After addressing all comments made during the 45-day EPA comment period, the District intends to issue the Authority to Construct with a Certificate of Conformity. Prior to operating with modifications authorized by the Authority 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,



Arnaud Marjollet  
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin  
Executive Director/Air Pollution Control Officer

# San Joaquin Valley Air Pollution Control District

## Authority to Construct Application Review

### Batch House Raw Material Handling

Facility Name: Saint-Gobain Containers, Inc.	Date: May 28, 2014
Mailing Address: P.O. Box 4200 Muncie, IN 47307-4200	Engineer: Stanley Tom
Contact Person: Mirko Muller	Lead Engineer: Joven Refuerzo
Telephone: (559) 675-4726	
Application #: C-801-3-12	
Project #: C-1141089	
Complete: April 17, 2014	

#### I. Proposal

Saint-Gobain Containers, Inc. (Saint-Gobain) operates a container glass manufacturing facility in Madera, CA. Saint-Gobain proposes to add five bin vent dust collectors to existing equipment in the raw material handling batch house listed in permit C-801-3. The proposed equipment is shown in the below table.

Permit	Name	Process (Permit C-801-3)
C-801-3-12	BIN VENT BV-2	Mixed Batch Day Bin
	BIN VENT BV-3	Transfer to Mixed Batch – Wetting Screw to North Batch Conveyor
	BIN VENT BV-4	Transfer to Mixed Batch – Wetting Screw to South Batch Conveyor
	BIN VENT BV-5	Transfer to Elevator Moving Material to Batch House
	BIN VENT BV-6	Transfer From External Cullet Conveyor to Cullet Bin

Saint-Gobain has received their Title V Permit. 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) (see Attachment B). 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 permit. Saint-Gobain 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 2410** Prevention of Significant Deterioration (June 16, 2011)
- Rule 2520** Federally Mandated Operating Permits (June 21, 2001)
- 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)  
**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

This facility is located at 24441 Avenue 12 at Road 24 ½ in Madera, CA. The facility is not located within 1,000 feet of any 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

The facility manufactures container glass from the following main ingredients: silica sand, soda ash, limestone, cullet (recycled glass), and salt cake. The equipment in this project involves the operations of weighing and mixing the raw glass production.

Materials transported to the batch house are unloaded on the unloading conveyor and are transferred to elevated levels via bucket elevator. Materials are stored in raw material bins. Materials are then unloaded from the silos onto a transfer conveyor belt. The conveyor belt transfers the material into a check scale and then a surge hopper. Materials are emptied into the batch mixer from the surge hopper. The batch mixer blends the powdered materials and cullet into a homogeneous product called mixed batch. This mixture is conveyed to mixed batch storage bins. There are two storage bins, with one delivering to each of the glass furnaces. Transfer points are enclosed and vented to dust collectors to minimize emissions.

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

### V. Equipment Listing

#### Pre-Project Equipment Description

Permit #	Pre-Project Equipment Description
C-801-3-11	RAW MATERIAL HANDLING INCLUDING UNLOADING, BATCH WEIGHING AND MIXING, AND MIXED BATCH STORAGE SERVED BY DONALDSON MBT 81-10, DONALDSON TORIT DOWNFLO MODEL #DFO 2-16, DONALDSON TORIT MODEL #100 PJD-8, AND TWO DCE DALAMATIC DU-10H-FS DUST COLLECTORS

Modification

Permit #	ATC Equipment Description
C-801-3-12	MODIFICATION OF RAW MATERIAL HANDLING INCLUDING UNLOADING, BATCH WEIGHING AND MIXING, AND MIXED BATCH STORAGE SERVED BY DONALDSON MBT 81-10, DONALDSON TORIT DOWNFLO MODEL #DFO 2-16, DONALDSON TORIT MODEL #100 PJD-8, AND TWO DCE DALAMATIC DU-10H-FS DUST COLLECTORS: ADD FIVE MAC PROCESS 39AVSC9 STYLE II BIN VENT DUST COLLECTORS SERVING MIXED BATCH DAY BIN, TRANSFER TO MIXED BATCH WITH WETTING SCREW TO NORTH BATCH CONVEYOR, TRANSFER TO MIXED BATCH WITH WETTING SCREW TO SOUTH BATCH CONVEYOR, TRANSFER TO ELEVATOR MOVING MATERIAL TO BATCH HOUSE, AND TRANSFER FROM EXTERNAL CULLET CONVEYOR TO CULLET BIN

Post-Project Equipment Description

Permit #	Post-Project Equipment Description
C-801-3-12	RAW MATERIAL HANDLING INCLUDING UNLOADING, BATCH WEIGHING AND MIXING, AND MIXED BATCH STORAGE SERVED BY DONALDSON MBT 81-10, DONALDSON TORIT DOWNFLO MODEL #DFO 2-16, DONALDSON TORIT MODEL #100 PJD-8, TWO DCE DALAMATIC DU-10H-FS DUST COLLECTORS, AND FIVE MAC PROCESS 39AVSC9 STYLE II BIN VENT DUST COLLECTORS

**VI. Emission Control Technology Evaluation**

PM<sub>10</sub> is the pollutant of concern emitted from the material handling operation. The PM<sub>10</sub> emissions are controlled with a dust collector and cartridge filters. The bin vent dust collectors have a PM control efficiency of 99.99%.

Design check calculations

Air Flow Calculations for the new dust collector

*MAC Process Model 39AVSC9 Style II pulse jet dust collector*

Airflow: 900 ft<sup>3</sup>/min (per Applicant)  
 Air/Cloth Ratio: = Air Flow Rate ÷ Cloth Area  
 = 900 cfm ÷ 324 ft<sup>2</sup> = 2.8 ft/min

The pulse jet cleaning mechanism uses a high pressure jet of air to remove the dust from the bags. The dust cake is removed from the bag by a blast of compressed air injected into the top of the bag tube. The air blast causes the bag to flex or expand as the shock wave travels down

the bag tube. As the bag tube flexes, the dust cake fractures and deposited particulates are discharged from the bag. Pulse jet baghouses are generally designed with air-to-cloth ratio (filtering velocity) between 5 and 15 ft/min.

The calculated air/cloth ratio is lower than the typical range. However the dust collector manufacturer and the operator described this piece of equipment as appropriate for this operation.

**VII. General Calculations**

**A. Assumptions**

- Facility operates 24 hours per day, 365 days per year (per Applicant)
- PM<sub>10</sub> is the only pollutant of concern in this project
- Each dust collector has a PM<sub>10</sub> control efficiency of 99.99% (per manufacturer)
- 50% of PM is PM10 (Rule 2201 Section 4.11.2)
- Each MAC Process Model 39AVSC9 Style II bin vent dust collector has an air flow rate of 900 cfm (per manufacturer)

**B. Emission Factors**

Existing Equipment

<b>Emission Factor (Existing Equipment)</b>		
Permit Unit	gr-PM/dscf	Source
Truck and Train Unloading Conveyor and Bucket Elevator	0.0001	Manufacturer guarantee
Flex Kleen or DCE Dalamatic DU-10H-FS	0.0001	Manufacturer guarantee
Donaldson Torit Downflo (DFO 2-16)	0.001	Manufacturer guarantee
Donaldson Torit (100 PJD-8)	0.001	Manufacturer guarantee

New Equipment

<b>Emission Factor (New Equipment)</b>		
Permit Unit	gr-PM/dscf	Source
Each MAC Process Model 39AVSC9 Style II bin vent dust collector	0.0001	Manufacturer guarantee

**C. Calculations**

**1. Pre-Project Potential to Emit (PE1)**

Truck and Train Unloading Conveyor and Bucket Elevator

$$\begin{aligned} \text{Daily PE1} &= 0.0001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 6,500 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \\ &= 0.1 \text{ lb-PM}_{10}\text{/day} \end{aligned}$$

$$\begin{aligned} \text{Annual PE1} &= 0.0001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 6,500 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \times 365 \text{ days/year} \\ &= 49 \text{ lb-PM}_{10}\text{/year} \end{aligned}$$

Two dust collectors (DCE Dalamatic DU-10H-FS) to service Level Seven

$$\begin{aligned} \text{Daily PE1} &= 0.0001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 400 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \times 2 \text{ dust collectors} \\ &= 0.0 \text{ lb-PM}_{10}\text{/day} \end{aligned}$$

$$\begin{aligned} \text{Annual PE1} &= 0.0001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 400 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \times 365 \text{ days/year} \\ &\quad \times 2 \text{ dust collectors} \\ &= 6 \text{ lb-PM}_{10}\text{/year} \end{aligned}$$

Donaldson Torit Downflo (DFO 2-16)

$$\begin{aligned} \text{Daily PE1} &= 0.001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 7,100 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \\ &= 1.5 \text{ lb-PM}_{10}\text{/day} \end{aligned}$$

$$\begin{aligned} \text{Annual PE1} &= 0.001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 7,100 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \times 365 \text{ days/year} \\ &= 533 \text{ lb-PM}_{10}\text{/year} \end{aligned}$$

Donaldson Torit (100 PJD-8)

$$\begin{aligned} \text{Daily PE1} &= 0.001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 3,400 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \\ &= 0.7 \text{ lb-PM}_{10}\text{/day} \end{aligned}$$

$$\begin{aligned} \text{Annual PE1} &= 0.001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 3,400 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \times 365 \text{ days/year} \\ &= 255 \text{ lb-PM}_{10}\text{/year} \end{aligned}$$

<b>Pre-Project Potential to Emit Summary</b>		
<b>Process</b>	<b>Daily PE (lb-PM<sub>10</sub>/day)</b>	<b>Annual PE (lb-PM<sub>10</sub>/year)</b>
Truck and Train Unloading Conveyor and Bucket Elevator	0.1	49
Two dust collectors (DCE Dalamatic DU-10H-FS) to service Level Seven	0.0	6
Donaldson Torit Downflo (DFO 2-16)	1.5	533
Donaldson Torit (100 PJD-8)	0.7	255
<b>Total</b>	<b>2.3</b>	<b>843</b>

**2. Post Project Potential to Emit (PE2)**

There is no proposed change to the existing equipment. Therefore, PE2 = PE1.

Each new bin vent dust collector

$$\begin{aligned} \text{PE2} &= 0.0001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 900 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \\ &= 0.02 \text{ lb-PM}_{10}\text{/day} \end{aligned}$$

$$\begin{aligned} \text{PE2} &= 0.0001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 900 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \times 365 \text{ days/year} \\ &= 7 \text{ lb-PM}_{10}\text{/year} \end{aligned}$$

All new bin vent dust collectors

$$\begin{aligned} \text{PE2} &= 0.0001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 900 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \times 5 \text{ dust collectors} \\ &= 0.1 \text{ lb-PM}_{10}\text{/day} \rightarrow 0.0^* \text{ lb-PM}_{10}\text{/day} \end{aligned}$$

$$\begin{aligned} \text{PE2} &= 0.0001 \text{ gr/dscf} \div 7,000 \text{ gr/lb} \times 900 \text{ (ft}^3\text{/min)} \times 1,440 \text{ min/day} \times 365 \text{ days/year} \\ &\quad \times 5 \text{ dust collectors} \\ &= 34 \text{ lb-PM}_{10}\text{/year} \rightarrow 0^* \text{ lb-PM}_{10}\text{/year}^* \end{aligned}$$

\* Per District Policy APR 1130, District policy is to consider an IPE of less than 0.5 lb/day to be rounded to zero for the purposes of triggering NSR requirements and therefore the requirements are not triggered. However, to minimize rounding errors, DELs, SSPE, PE and all other associated figures will be reflected in the EE and the permits without setting a daily increase in emissions of less than 0.5 lb/day to zero.

<b>Post-Project Potential to Emit Summary</b>		
<b>Process</b>	<b>Daily PE (lb-PM<sub>10</sub>/day)</b>	<b>Annual PE (lb-PM<sub>10</sub>/year)</b>
Truck and Train Unloading Conveyor and Bucket Elevator	0.1	49
Two dust collectors (DCE Dalamatic DU-10H-FS) to service Level Seven	0.0	6
Donaldson Torit Downflo (DFO 2-16)	1.5	533
Donaldson Torit (100 PJD-8)	0.7	255
Five bin vent dust collectors (MAC Process Model 39AVSC9 Style II)	0.0	34
<b>Total</b>	<b>2.3</b>	<b>877</b>

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

Pursuant to District Rule 2201, the Pre-Project Stationary Source Potential to Emit (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 that have occurred at the source, and which have not been used on-site.

The Pre-Project Stationary Source Potential to Emit (SSPE1) is summarized below.

<b>Pre-Project Stationary Source Potential to Emit [SSPE1] (lb/year)</b>					
	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>CO</b>	<b>VOC</b>
Pre-Project SSPE (SSPE1)	> 20,000	> 140,000	> 140,000	> 200,000	> 20,000

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

Pursuant to District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) 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 that have occurred at the source, and which have not been used on-site. The Post Project Stationary Source Potential to Emit (SSPE2) is summarized below:

Post-Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
Post-Project SSPE (SSPE2)	> 20,000	> 140,000	> 140,000	> 200,000	> 20,000

#### 5. Major Source Determination

##### Rule 2201 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. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Major Source Determination (lb/year)					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
Pre-Project SSPE (SSPE1)	> 20,000	> 140,000	> 140,000	> 200,000	> 20,000
Post Project SSPE (SSPE2)	> 20,000	> 140,000	> 140,000	> 200,000	> 20,000
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<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC and will remain a Major Source for these pollutants.

##### Rule 2410 Major Source Determination

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)	
	CO2e
Estimated Facility PE before Project Increase	> 125,762
PSD Major Source Thresholds	100,000
PSD Major Source ? (Y/N)	Y

### GHG Calculations

The following table summarizes the external combustion equipment at the facility.

Permit	Equipment	Rating
C-801-1-13	Glass Furnace	75 MMBtu/hr
C-801-2-10	Glass Furnace	85 MMBtu/hr
C-801-19-3	Distributor	10 MMBtu/hr
C-801-20-3	Lehr	7.0 MMBtu/hr
C-801-21-3	Lehr	12.0 MMBtu/hr
C-801-22-2	Forehearth	3.0 MMBtu/hr
C-801-23-2	Forehearth	3.0 MMBtu/hr
C-801-24-2	Forehearth	4.0 MMBtu/hr
C-801-25-3	Forehearth	3.0 MMBtu/hr
C-801-26-1	Distributor	9.9 MMBtu/hr
C-801-27-1	Forehearth	4.3 MMBtu/hr
C-801-28-1	Forehearth	2.7 MMBtu/hr
C-801-29-1	Forehearth	4.3 MMBtu/hr
C-801-30-1	Lehr	5.0 MMBtu/hr
C-801-31-1	Lehr	5.0 MMBtu/hr
C-801-32-1	Lehr	5.0 MMBtu/hr
C-801-33-1	Fire Polishing Operation	3.6 MMBtu/hr
C-801-34-1	Fire Polishing Operation	3.6 MMBtu/hr
Total		245.4 MMBtu/hr

### Basis and Assumptions

- Emission factors and global warming potentials (GWP) are taken from EPA 40 CFR Part 98, Subpart A, Tables C-1 and C-2:

#### Natural Gas

CO2	53.02 kg/MMBtu (116.89 lb/MMBtu)
CH4	$1.0 \times 10^{-3}$ kg/MMBtu (0.0022 lb/MMBtu)
N2O	$1.0 \times 10^{-4}$ kg/MMBtu (0.00022 lb/MMBtu)

GWP for CH4 = 21 lb-CO2(eq) per lb-CH4

GWP for N2O = 310 lb-CO2(eq) per lb-N2O

## Calculations

### *Annual Emissions (External Combustion)*

$$\begin{aligned}\text{CO}_2 \text{ Emissions} &= 245.4 \text{ MMBtu/hr} \times 116.89 \text{ lb/MMBtu} \times 8,760 \text{ hours/year} \\ &= 251,278,901 \text{ lb-CO}_2(\text{eq})/\text{year} \\ \text{CH}_4 \text{ Emissions} &= 245.4 \text{ MMBtu/hr} \times 0.0022 \text{ lb/MMBtu} \times 8,760 \text{ hours/year} \\ &\quad 21 \text{ lb-CO}_2(\text{eq}) \text{ per lb-CH}_4 \\ &= 99,316.3 \text{ lb-CO}_2(\text{eq})/\text{year} \\ \text{N}_2\text{O Emissions} &= 245.4 \text{ MMBtu/hr} \times 0.00022 \text{ lb/MMBtu} \times 8,760 \text{ hours/year} \\ &\quad 310 \text{ lb-CO}_2(\text{eq}) \text{ per lb-N}_2\text{O} \\ &= 146,609.8 \text{ lb-CO}_2(\text{eq})/\text{year}\end{aligned}$$

$$\text{Total} = 251,278,901 + 99,316.3 + 146,609.8 = 251,524,827 \text{ lb-CO}_2(\text{eq})/\text{year}$$

$$\text{Total} = 251,524,827 \text{ lb-CO}_2(\text{eq})/\text{year} \div 2,000 \text{ lb/ton} = \mathbf{125,762 \text{ short tons-CO}_2(\text{eq})/\text{year}}$$

As shown above, the facility is an existing major source for PSD for at least one pollutant. Therefore, the facility is an existing major source for PSD.

## **6. Baseline Emissions (BE)**

BE = Pre-project Potential to Emit 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 Rule 2201

### Existing Equipment

#### Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, 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.

All existing emission units in this project are served by dust collectors, which have PM<sub>10</sub> control efficiencies of 99% or greater. Therefore, Baseline Emissions (BE) are equal to the Pre-Project Potential to Emit (PE1).

### New Equipment

Since these are new emission units, BE = PE1 = 0 for all pollutants.

## 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."

As discussed in Section VII.C.5 above, the facility is an existing Major Source for PM<sub>10</sub>; however, the project by itself would need to be a significant increase in order to trigger a SB 288 Major Modification. The emissions units within this project do not have a total potential to emit which is greater than SB 288 Major Modification thresholds (see table below). Therefore, the project cannot be a significant increase and the project does not constitute a SB 288 Major Modification.

Major Modification Thresholds (Existing Major Source)			
Pollutant	Project PE (lb/year)	Threshold (lb/year)	Major Modification?
PM <sub>10</sub>	843 + 34 = 877	30,000	No

## 8. Federal Major Modification

District Rule 2201 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.

<b>Significant Threshold (lb/year)</b>	
Pollutant	Threshold (lb/year)
VOC	0
NO <sub>x</sub>	0
PM <sub>10</sub>	30,000
SO <sub>x</sub>	80,000

The Net Emissions Increases (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.

Net Emission Increase for Existing Units (NEI<sub>E</sub>)

Per 40 CFR 51.165 (a)(2)(ii)(D) for existing emissions units in this project,

$$NEI_E = PE2_E - BAE$$

The emissions unit in this project only emits particulate matter; therefore only PM<sub>10</sub> calculations are required.

Assumed BAE = 0 for the existing units for worst case scenario; therefore NEI<sub>E</sub> = PE2<sub>E</sub>

$$NEI_E (PM_{10}) = (843 + 34) \text{ lb/year} = 877 \text{ lb/year}$$

$$NEI (PM_{10}) = 877 \text{ lb/year}$$

The NEI for this project will be less than the federal Major Modification threshold of 30,000 lb/year for PM<sub>10</sub>. Therefore, this project does qualify for a "Less-Than-Significant Emissions Increase" exclusion and is thus determined not to be a Federal Major Modification.

**9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination**

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO<sub>2</sub> (as a primary pollutant)
- SO<sub>2</sub> (as a primary pollutant)
- CO
- PM
- PM<sub>10</sub>
- Greenhouse gases (GHG): CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFCs, PFCs, and SF<sub>6</sub>

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD Major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

**I. Project Location Relative to Class 1 Area**

As demonstrated in the “PSD Major Source Determination” Section above, the facility was determined to be a existing major source for PSD. Because the project is not located within 10 km of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

**II. Significance of Project Emission Increase Determination**

**a. Potential to Emit of attainment/unclassified pollutant for New or Modified Emission Units vs PSD Significant Emission Increase Thresholds**

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

<b>PSD Significant Emission Increase Determination: Potential to Emit (tons/year)</b>						
	NO2	SO2	CO	PM	PM10	CO2e
Total PE from New and Modified Units	0	0	0	0.44	0.44	0
PSD Significant Emission Increase Thresholds	40	40	100	25	15	75,000
PSD Significant Emission Increase?	N	N	N	N	N	N

As demonstrated above, because the project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

**10. Quarterly Net Emissions Change (QNEC)**

The QNEC is calculated solely to establish emissions that are used to complete the District’s PAS emissions profile screen. Detailed QNEC calculations are included in Attachment A.

## VIII. Compliance

### 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 for the following\*:

- 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 a Major Modification.

\*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.

##### a. New Emissions units with PE > 2 lb/day

###### New Equipment

As seen in Section VII.C.2 above, the applicant is proposing to install five new bin vent dust collectors each with a PE less than 2 lb/day. Therefore, BACT is not triggered.

##### b. Relocation of emissions with PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

##### c. Modification of emissions units with AIPE > 2 lb/day

###### Existing Equipment

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE2 = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE1} \times (\text{EF2}/\text{EF1})$$

Where,

- PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)
- EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1
- EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$AIPE = PE2 - (PE1 * (EF2 / EF1))$$

There are no emission factor changes in this project; therefore, EF2 / EF1 = 1.

Adjusted Increase in Permitted Emissions				
Process	PE2 (lb/day)	PE1 (lb/day)	AIPE (lb/day)	BACT Triggered?
Truck and Train Unloading Conveyor and Bucket Elevator	0.1	0.1	0.0	No
Two dust collectors (DCE Dalamatic DU-10H-FS) to service Level Seven	0.0	0.0	0.0	No
Donaldson Torit Downflo (DFO 2-16)	1.5	1.5	0.0	No
Donaldson Torit (100 PJD-8)	0.7	0.7	0.0	No

**d. SB 288/Federal Major Modification**

As discussed in Section VII.C.7 and VII.C.8 above, this project does not constitute a SB 288 and/or Federal Major Modification; therefore BACT is not triggered.

**B. Offsets**

**1. Offset Applicability**

Pursuant to Rule 2201, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Offset Applicability (lb/year)					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
Post Project SSPE (SSPE2)	> 20,000	> 140,000	> 140,000	> 200,000	> 20,000
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	Yes	Yes	Yes	Yes	Yes

## 2. Quantity of Offsets Required

PM<sub>10</sub> is the only pollutant of concern in this project. Therefore, calculations for only PM<sub>10</sub> emissions are required.

The quantity of offsets in pounds per year for each pollutant is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

$$\text{Offsets Required (lb/year)} = (\Sigma[\text{PE2} - \text{BE}] + \text{ICCE}) \times \text{DOR, for all new or modified emissions units in the project}$$

where:

PE2 = Post-project Potential to Emit (lb/year)

BE = Baseline Emissions (lb/year)

ICCE = Increase in Cargo Carrier Emissions (lb/year)

DOR = Distance Offset Ratio, determined pursuant to Rule 2201

BE = Pre-project Potential to Emit 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)

There are no increases in cargo carrier emissions; therefore offsets can be determined as follows:

$$\begin{aligned} \text{Offsets Required (lb/year)} &= (\Sigma[\text{PE2} - \text{BE}] + \text{ICCE}) \times \text{DOR} \\ &= ([\text{PE2} - \text{BE}]_{\text{Existing Equipment}} + [\text{PE2} - \text{BE}]_{\text{New Equipment}} + \text{ICCE}) \\ &\quad \times \text{DOR} \end{aligned}$$

PE2 <sub>Existing Equipment</sub>	=	843 lb-PM <sub>10</sub> /year
BE <sub>Existing Equipment</sub>	=	843 lb-PM <sub>10</sub> /year
PE2 <sub>New Equipment</sub>	=	34 lb-PM <sub>10</sub> /year
BE <sub>New Equipment</sub>	=	0 lb-PM <sub>10</sub> /year
ICCE	=	0 lb/year

$$\begin{aligned} \text{Offsets Required (lb/year)} &= ([843 - 843] + [34 - 0] + 0) \times \text{DOR} \\ &= 34 \text{ lb PM}_{10}/\text{year} \times \text{DOR} \rightarrow 0^* \text{ lb PM}_{10}/\text{year} \end{aligned}$$

\* Per District Policy APR 1130, District policy is to consider an IPE of less than 0.5 lb/day to be rounded to zero for the purposes of triggering NSR requirements. Therefore, 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 SSPE 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 Sections VII.C.7 and VII.C.8, 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 Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

**c. Offset Threshold**

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

<b>Offset Threshold</b>				
<b>Pollutant</b>	<b>SSPE1 (lb/year)</b>	<b>SSPE2 (lb/year)</b>	<b>Offset Threshold</b>	<b>Public Notice Required?</b>
NO <sub>x</sub>	> 20,000	> 20,000	20,000 lb/year	No
SO <sub>x</sub>	> 54,750	> 54,750	54,750 lb/year	No
PM <sub>10</sub>	> 29,200	> 29,200	29,200 lb/year	No
CO	> 200,000	> 200,000	200,000 lb/year	No
VOC	> 20,000	> 20,000	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.

<b>Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice</b>				
Pollutant	Project PE2 (lb/year)	Project PE1 (lb/year)	SSIPE	Public Notice Required?
NO <sub>x</sub>	0	0	0	No
SO <sub>x</sub>	0	0	0	No
PM <sub>10</sub>	877	843	34	No
CO	0	0	0	No
VOC	0	0	0	No

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

**2. Public Notice Action**

As discussed above, this project will not result in emissions, for any criteria 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)**

Daily Emissions Limitations (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 permit and contained in or enforced by the latest PTO permit and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

**Proposed Rule 2201 (DEL) Condition**

- Controlled PM10 emissions from each of the truck and train unloading conveyor and bucket elevator, Flex Kleen or DCE Dalamatic DU-10H-FS, and MAC Process Model 39AVSC9 Style II dust collectors shall not exceed 0.0001 gr/scf. [District Rule 2201]
- Controlled PM10 emissions from Donaldson Torit Downflo (DFO 2-16) and Donaldson Torit (100 PJD-8) dust collectors shall not exceed 0.001 gr/scf. [District Rule 2201]

## **E. Compliance Assurance**

The following measures shall be taken to ensure continued compliance with District Rules:

### **1. Source Testing**

As stated in District Policy APR 1705, non-combustion equipment served by a baghouse with expected PM<sub>10</sub> emissions of 30 pounds per day or greater must be tested upon initial start-up. Units with PM<sub>10</sub> emissions in excess of 70 pounds per day should also be tested on annual basis.

As shown in the calculation section above, all equipment have PM<sub>10</sub> emissions below the above levels. Therefore, pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

### **2. Monitoring**

No monitoring is required to demonstrate compliance with Rule 2201.

### **3. Recordkeeping**

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following conditions will listed on the permit to ensure compliance:

- Differential operating pressure for each bin vent dust collector shall be monitored and recorded on each day that the bin vent dust collector operates. [District Rule 2201]
- Records of all maintenance of each bin vent dust collector, including all change outs of filter media, shall be maintained. [District Rule 2201]
- Records of maintenance, inspections, and repair for each bin vent dust collector shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520]

### **4. Reporting**

No reporting is required to demonstrate compliance with Rule 2201.

## **Rule 2410 Prevention of Significant Deterioration**

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

As demonstrated above, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

## **Rule 2520 Federally Mandated Operating Permit**

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 permit upon submittal of the Title V administrative amendment application.

## **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.

For operation served by a dust collector, visible emissions shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour.

A permit condition will be listed on permit as follows:

- Visible emissions from each bin vent dust collector shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in one hour. [District Rule 2201]

## Rule 4102 Nuisance

Section 4.0 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.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Attachment C), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
C-801-3-12	0.6 per million	No

### Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Attachment C of this report, the emissions increases for this project was determined to be less than significant.

## 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.

The manufacturer has guaranteed a PM<sub>10</sub> emission rate of 0.001 gr/scf for each bin vent dust collector.

Since 0.001 grain/dscf is less than 0.1 grain/dscf, compliance with this rule 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:

$$E = 3.59 P^{0.62} \text{ (when, } P = \text{ process weight rate } \leq 30 \text{ tons/hr)}$$
$$E = 17.31 P^{0.16} \text{ (when, } P = \text{ process weight rate } > 30 \text{ tons/hr)}$$

The post-project process weight rate of the material handling operation is 49.88 tons per hour (equivalent to 1,197 tons/day).

$$\begin{aligned} \text{Rule 4202 emission limit} &= 17.31 * P^{0.16} \text{ (where } P \text{ less than } 30 \text{ tons/hr)} \\ &= 17.31 * (49.88)^{0.16} \\ &= 32.36 \text{ lb/hr} \end{aligned}$$

The operation has a maximum Post Project Potential to Emit (PE2) of 0.1 lb/hr (2.3 lb/day ÷ 24 hr/day).

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

#### **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)**

The California Environmental Quality Act (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 San Joaquin Valley Unified Air Pollution Control District (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.
- 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 has determined that potential emission increases would have a less than significant health impact on sensitive receptors.

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. Issue Authority to Construct permit C-801-3-12 subject to the permit conditions on the attached draft Authority to Construct permit in Attachment D.

**X. Billing Information**

<b>Annual Permit Fees</b>			
Permit Number	Fee Schedule	Fee Description	Annual Fee
C-801-3-12	3020-05-F	544,349 gallons	\$278

**Attachments**

- A. Quarterly Net Emissions Change (QNEC)
- B. Certificate of Conformity
- C. Health Risk Assessment Analysis
- D. Draft Authority to Construct Permit

**Attachment A**  
**Quarterly Net Emissions Change (QNEC)**

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - BE, where:

- QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
- PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
- BE = Baseline Emissions (per Rule 2201) for each emissions unit, lb/qtr.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly BE can be calculated as follows:

$$\begin{aligned}
 PE2_{\text{quarterly}} &= PE2_{\text{annual}} \div 4 \text{ quarters/year} \\
 &= 34 \text{ lb/year} \div 4 \text{ qtr/year} \\
 &= 9 \text{ lb PM}_{10}/\text{qtr}
 \end{aligned}$$

$$\begin{aligned}
 BE_{\text{quarterly}} &= BE_{\text{annual}} \div 4 \text{ quarters/year} \\
 &= 0 \text{ lb/year} \div 4 \text{ qtr/year} \\
 &= 0 \text{ lb PM}_{10}/\text{qtr}
 \end{aligned}$$

<b>Quarterly NEC [QNEC]</b>			
	PE2 (lb/qtr)	BE (lb/qtr)	NEC (lb/qtr)
NO <sub>x</sub>	0	0	0
SO <sub>x</sub>	0	0	0
PM <sub>10</sub>	9	0	9
CO	0	0	0
VOC	0	0	0

**Attachment B**  
**Certificate of Conformity**

**San Joaquin Valley  
Unified Air Pollution Control District**

**TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM**

**I. TYPE OF PERMIT ACTION (Check appropriate box)**

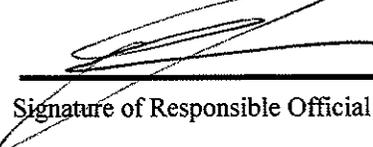
- SIGNIFICANT PERMIT MODIFICATION                       ADMINISTRATIVE  
 MINOR PERMIT MODIFICATION                                       AMENDMENT

COMPANY NAME: Saint-Gobain Containers, Inc.	FACILITY ID: C- 801
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: Saint-Gobain Containers, Inc.	
3. Agent to the Owner: n/a	

**II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):**

- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

  
\_\_\_\_\_  
Signature of Responsible Official

05/26/14  
\_\_\_\_\_  
Date

Mirko Muller  
\_\_\_\_\_  
Name of Responsible Official (please print)  
  
Plant Manager  
\_\_\_\_\_  
Title of Responsible Official (please print)

**Attachment C**  
**Health Risk Assessment Analysis**

# San Joaquin Valley Air Pollution Control District Risk Management Review

To: Stanly Tom AQE-- Permit Services  
 From: Esteban Gutierrez AQS – Technical Services  
 Date: May 2, 2014  
 Facility Name: Saint Gobain Containers Inc  
 Location: 24441 Ave 12 and Road 24, Madera CA  
 Application #(s): C-801-3-12  
 Project #: C-1141089

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## A. RMR SUMMARY

RMR Summary			
Categories	Five Dust collectors (Unit 3-12)	Project Totals	Facility Totals
Prioritization Score	0.01	0.01	>1.0
Acute Hazard Index	0.04	0.04	0.04
Chronic Hazard Index	0.02	0.02	0.02
Maximum Individual Cancer Risk ( $10^{-6}$ )	0.60	0.60	2.9
T-BACT Required?	No		
Special Permit Conditions?	No		

### Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit # 3-12

No special conditions are required.

## B. RMR REPORT

### I. Project Description

Technical Services received a request on April 21, 2014, to perform a Risk Management Review for a proposed installation of a five dust collectors to a batch house at a glass plant.

## II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated using Glass Furnace emission spreadsheet were input into the HEARTs database. The AERMOD model was used, with the parameters outlined below and meteorological data for 2005-2009 from Madera to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the Hot Spots Analysis and Reporting Program (HARP) risk assessment module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 3-12			
Source Type	Point	Location Type	Urban
Stack Height (m)	3.66	Closest Receptor (m)	609
Stack Diameter. (m)	0.55	Type of Receptor	Residential
Stack Exit Velocity (m/s)	1.80	Max Hours per Year	8760
Stack Exit Temp. (°K)	298	Emissions type	PM
Process rates (lb/yr)	34		

## III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

## IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Toxic emissions summary
- D. Prioritization score
- E. Facility Summary

## **Attachment D**

### **Draft Authority to Construct (ATC) Permit**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE: DRAFT**

**PERMIT NO:** C-801-3-12

**LEGAL OWNER OR OPERATOR:** SAINT-GOBAIN CONTAINERS, INC  
**MAILING ADDRESS:** 24441 AVENUE 12  
ATTN: ENVIRO MANAGER/S. ARUNAGIRI  
MADERA, CA 93637

**LOCATION:** 24441 AVENUE 12 & ROAD 24 1/2  
MADERA, CA 93637

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF RAW MATERIAL HANDLING INCLUDING UNLOADING, BATCH WEIGHING AND MIXING, AND MIXED BATCH STORAGE SERVED BY DONALDSON MBT 81-10, DONALDSON TORIT DOWNFLO MODEL #DFO 2-16, DONALDSON TORIT MODEL #100 PJD-8, AND TWO DCE DALAMATIC DU-10H-FS DUST COLLECTORS; ADD FIVE MAC PROCESS 39AVSC9 STYLE II BIN VENT DUST COLLECTORS SERVING MIXED BATCH DAY BIN, TRANSFER TO MIXED BATCH WITH WETTING SCREW TO NORTH BATCH CONVEYOR, TRANSFER TO MIXED BATCH WITH WETTING SCREW TO SOUTH BATCH CONVEYOR, TRANSFER TO ELEVATOR MOVING MATERIAL TO BATCH HOUSE, AND TRANSFER FROM EXTERNAL CULLET CONVEYOR TO CULLET BIN

**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. Visible emissions from each dust collector shall not exceed 5% opacity for a period of periods aggregating more than three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Material removed from each dust collector shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 4102]
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 4102]

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

Arnaud Marjollet, Director of Permit Services

C-801-3-12: May 28 2014 11:09AM -- TOMS Joint Inspection NOT Required

6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Each dust collector shall be maintained and operated according to manufacturer's specifications. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The cleaning frequency and duration for each dust collector shall be adjusted to optimize the control efficiency. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Replacement filters numbering at least 10% of the total number of filters in each dust collector shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Each dust collector shall be equipped with a pressure differential gauge to indicate the pressure drop across the filters. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The dust collectors shall operate at all times with a minimum differential pressure of 1 inches water column and a maximum differential pressure of 6 inches water column. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Controlled PM10 emissions from each of the truck and train unloading conveyor and bucket elevator, Flex Kleen or DCE Dalamatic DU-10H-FS, and MAC Process Model 39AVSC9 Style II dust collectors shall not exceed 0.0001 gr/scf. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Controlled PM10 emissions from the Donaldson Torit Downflo (DFO 2-16) and Donaldson Torit (100 PJD-8) dust collectors shall not exceed 0.001 gr/scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Differential operating pressure for each dust collector shall be monitored and recorded on each day that the dust collector operates. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records of all maintenance of each dust collector, including all change outs of filter media, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Records of daily production of mixed batch material shall be maintained and made available for District inspection upon request. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit
17. Particulate matter emissions from each source operation shall not exceed the maximum allowable emission rate (lb/hr), as determined using the following formula:  $E = 3.59 \times P^{0.62}$ , where E equals the maximum allowable emission rate (lb/hr) and P equals the process weight rate (tons/hr) and is less than or equal to 30 tons/hr. [District Rule 4202] Federally Enforceable Through Title V Permit
18. Compliance with the conditions in the permit requirements for this unit shall be deemed compliance with District Rules 4201 (as amended December 17, 1992) and 4202 (as amended December 17, 1992); and Madera County Rule 402. A permit shield is granted from these requirements. [District Rule 2520] Federally Enforceable Through Title V Permit
19. Filters for each dust collector shall be inspected weekly while in operation for evidence of particulate matter breakthrough and replaced as needed. [District Rule 2520] Federally Enforceable Through Title V Permit
20. Filters for each dust collector shall be inspected monthly while not in operation for tears, scuffs, abrasions or holes which might interfere with the PM collection efficiency and shall be replaced as needed. [District Rule 2520] Federally Enforceable Through Title V Permit
21. Records of maintenance, inspections, and repair for each dust collector shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520] Federally Enforceable Through Title V Permit
22. Visible emissions from each dust collector shall be inspected monthly during operation. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rule 2520] Federally Enforceable Through Title V Permit
23. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070 and 2520] Federally Enforceable Through Title V Permit