



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

MAR 26 2013

Phillip Newell  
Guardian Industries Corp.  
11535 E. Mountain View Ave.  
Kingsburg, CA 93631-9211

**Re: Notice of Preliminary Decision - Emission Reduction Credits**  
**Project Number: C-1122264**

Dear Mr. Newell:

Enclosed for your review and comment is the District's analysis of Guardian Industries Corp.'s application for Emission Reduction Credits (ERCs) resulting from the cold tank rebuild of the flat glass furnace, at 11535 E. Mountain View Ave. in Kingsburg (District Facility C-598). The quantity of ERCs proposed for banking is 5,286 metric tons of CO<sub>2</sub>e per year.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Brian Clements of Permit Services at (559) 230-5921.

Sincerely,

David Warner  
Director of Permit Services

DW:bc

Enclosures

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

Northern Region  
4800 Enterprise Way  
Modesto, CA 95358-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)  
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Southern Region  
34948 Flyover Court  
Bakersfield, CA 93308-9725  
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MAR 26 2013

Gerardo C. Rios (AIR 3)  
Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Emission Reduction Credits**  
**Project Number: C-1122264**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Guardian Industries Corp.'s application for Emission Reduction Credits (ERCs) resulting from the cold tank rebuild of the flat glass furnace, at 11535 E. Mountain View Ave. in Kingsburg (District Facility C-598). The quantity of ERCs proposed for banking is 5,286 metric tons of CO<sub>2</sub>e per year.

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MAR 26 2013

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Emission Reduction Credits**  
**Project Number: C-1122264**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Guardian Industries Corp.'s application for Emission Reduction Credits (ERCs) resulting from the cold tank rebuild of the flat glass furnace, at 11535 E. Mountain View Ave. in Kingsburg (District Facility C-598). The quantity of ERCs proposed for banking is 5,286 metric tons of CO<sub>2</sub>e per year.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Brian Clements of Permit Services at (559) 230-5921.

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Fresno Bee

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits to Guardian Industries Corp. for the cold tank rebuild of the flat glass furnace, at 11535 E. Mountain View Ave. in Kingsburg (District Facility C-598). The quantity of ERCs proposed for banking is 5,286 metric tons of CO<sub>2</sub>e per year.

The analysis of the regulatory basis for this proposed action, Project #C-1122264, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted by April 29, 2013 to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 1990 EAST GETTYSBURG AVENUE, FRESNO, CA 93726.

# **APPLICATION REVIEW**

## **Preliminary Decision - Greenhouse Gas Emission Reduction Credits Flat Glass Furnace Modifications**

**Processing Engineer:** Brian Clements  
**Lead Engineer:** Sheraz Gill  
**Date:** March 19, 2013

**Facility Name:** Guardian Industries Corp.  
**Mailing Address:** 11535 E. Mountain View Ave.  
Kingsburg, CA 93631-9211

**Contact Name:** Phillip Newell - Environmental Engineer  
**Phone:** (559) 896-6400  
**E-mail:** [philnewell@engineer.net](mailto:philnewell@engineer.net)

**Facility Location:** 11535 E. Mountain View Ave.  
Kingsburg, CA 93631-9211

**Deemed Complete Date:** August 15, 2012  
**Project Number:** C-1122264

### **I. Summary:**

The Guardian facility located in Kingsburg manufactures flat glass, and has applied for Greenhouse Gas (GHG) Emission Reduction Credits (ERCs). The facility has performed a "cold tank" rebuild of their flat glass manufacturing line (permit C-598-4). The shutdown and rebuild began on January 7, 2008. The previous permit that was modified was PTO #C-598-4-7 (see **Appendix A** for the previous PTO). The modification was authorized under Authority to Construct (ATC) #C-598-4-8, project #C-1051269, finalized on June 5, 2006, and implemented on May 1, 2008. The implemented post-project permit, C-598-4-8, is attached as **Appendix B**.

The primary modifications of the rebuild, were as follows:

- Install Selective Catalytic Reduction (SCR)
- Install high temperature dry scrubber
- Replace electrostatic precipitator
- Remove fuel oil firing capabilities (to natural gas)
- Increase furnace combustion rating from 182 MMBtu/hr to 212 MMBtu/hr
- Increase potential production from 219,000 ton/year to 255,500 ton/year

Switching from fuel oil to natural gas resulted in a reduction of GHG emissions. Increasing potential production and heat input results in an increase in GHG emissions. The difference is what is potentially available to bank under this project.

District Rule 2301 (*Emission Reduction Credit Banking*) now allows the banking of GHG emissions. The application to bank the GHG ERCs was received on July 16, 2012.

The District has proposed to issue the GHG ERCs for Carbon Dioxide equivalent (CO<sub>2</sub>e). The amount of bankable CO<sub>2</sub>e emissions is shown in the table below.

<b>Pollutant</b>	<b>Bankable GHG Emissions (metric ton/year)</b>
CO <sub>2</sub> e	5,286

**II. Applicable Rules:**

Rule 2301 - Emission Reduction Credit Banking (last amended 1/19/12)

**III. Location of Reductions:**

Physical Location of Equipment: 11535 E. Mountain View Ave. in Kingsburg, CA.

**IV. Method of Generating Reductions:**

The AERs were generated by modifying the current furnace and the control system, as authorized by ATC #C-598-4-8 under District project C-1051269. The equipment descriptions are as follows:

**C-598-4-7 (Previous PTO):**

182.0 MMBTU/HR FLOAT GLASS MANUFACTURING LINE THAT INCLUDES: A MELTING FURNACE, TIN FLOAT BATH, ANNEALING LEHR, A UNITED MCGILL 3-500 MODULAR ELECTROSTATIC PRECIPITATOR, AND IS EQUIPPED WITH A CONTINUOUS EMISSIONS MONITOR

**C-598-4-8 (Implemented ATC):**

MODIFICATION OF 182.0 MMBTU/HR FLOAT GLASS MANUFACTURING LINE THAT INCLUDES: A MELTING FURNACE, TIN FLOAT BATH, ANNEALING LEHR, A UNITED MCGILL 3-500 MODULAR ELECTROSTATIC PRECIPITATOR, AND IS EQUIPPED WITH A CONTINUOUS EMISSIONS MONITOR: REBUILD THE FURNACE, INSTALL A HIGH TEMPERATURE (DRY) SCRUBBER (C/U1), A NEW ELECTROSTATIC PRECIPITATOR (C/U2), AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM (C/U3), CONVERT THE FURNACE TO FIRING ON NATURAL GAS AND LPG, INCREASE FURNACE COMBUSTION RATING FROM 182.0 MMBTU/HR TO 212.0 MMBTU/HR, AND INCREASE PRODUCTION THROUGHPUT FROM 600 TONS/DAY TO 700 TONS/DAY

**V. Calculations:**

**A. Assumptions**

1. The AERs are based solely on the difference between the fuel oil GHG EF and the natural gas GHG EF, accounting for the increase in post project throughput. Additional post project efficiencies are not factored in since they are not enforceable via permit.

2. The post-project potential throughput has been increased from 219,000 ton/year to 255,500 ton/year (via permit), which is an increase of 16.67%.
3. The fuel consumption is directly proportional to the glass throughput.
4. The baseline fuel use and production records were provided under the NOx and SOx banking project C-1063337.
5. Fuel Oil grade #6 heating value is 0.150 MMBtu/gal (AP-42, page 1.3-8, 9/98).
6. Baseline Average Throughput = 190,086 ton/year (provided by the applicant under project C-1063337).
7. Baseline Average Fuel Use = 8,755,538 gal/year (provided by the applicant under project C-1063337).
8. GHG ERCs are issued on a metric ton basis.
9. Conversion: 1 kg = 0.001 metric ton.

## **B. Emission Factors (EFs)**

The EFs used to calculate the AERs are as follows:

### **Pre-Project EF (EF1)**

#### **Fuel Oil #6**

Carbon dioxide equivalents (CO<sub>2</sub>e) are found by multiplying the mass emissions of a GHG by its global warming potential (GWP). For combustion sources, GHG's include the following three "well-mixed" compounds: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). The District has adopted the following GWPs per District Rule 2301 (*Emission Reduction Credit Banking*):

CO<sub>2</sub> = 1  
CH<sub>4</sub> = 21  
N<sub>2</sub>O = 310

The following fuel oil #6 EFs are per 40 CFR Part 98 Subpart C:

75.10 kg-CO<sub>2</sub>/MMBtu  
0.003 kg-CH<sub>4</sub>/MMBtu  
0.0006 kg-N<sub>2</sub>O/MMBtu

The GWPs of CH<sub>4</sub> and N<sub>2</sub>O will be combined with the combustion emission factors into a single CO<sub>2</sub>e emission factor.

CO<sub>2</sub>e EF = [75.10 kg-CO<sub>2</sub>/MMBtu + (0.003 kg-CH<sub>4</sub>/MMBtu × 21 lb-CO<sub>2</sub>e/lb-CH<sub>4</sub>)

$$+ (0.0006 \text{ kg-N}_2\text{O/MMBtu} \times 310 \text{ lb-CO}_2\text{e/lb-N}_2\text{O})]$$

CO<sub>2</sub>e EF = 75.4 kg/MMBtu (equivalent to 0.0754 metric ton/MMBtu)

**Post-Project EF (EF2)**

**Natural Gas**

The following natural gas EFs are per 40 CFR Part 98 Subpart C:

53.02 kg-CO<sub>2</sub>/MMBtu

0.001 kg-CH<sub>4</sub>/MMBtu

0.0001 kg-N<sub>2</sub>O/MMBtu

The GWPs of CH<sub>4</sub> and N<sub>2</sub>O will be combined with the combustion emission factors into a single CO<sub>2</sub>e emission factor.

$$\text{CO}_2\text{e EF} = [53.02 \text{ kg-CO}_2\text{/MMBtu} + (0.001 \text{ kg-CH}_4\text{/MMBtu} \times 21 \text{ lb-CO}_2\text{e/lb-CH}_4) \\ + (0.0001 \text{ kg-N}_2\text{O/MMBtu} \times 310 \text{ lb-CO}_2\text{e/lb-N}_2\text{O})]$$

CO<sub>2</sub>e EF = 53.1 kg/MMBtu (equivalent to 0.0531 metric ton/MMBtu)

**C. Baseline Period Determination and Data**

In accordance with District Rule 2301, Section 4.5.4, GHG emission reductions are calculated using the consecutive 24 month period immediately prior to the date the emission reduction occurred, or another consecutive 24 month period in the 60 months prior to the date the emission reduction occurred if determined by the APCO as being more representative of normal operations. Note, the previously determined baseline period for the criteria pollutant banking project C-1063337 was the three calendar years from 2003 - 2005. For consistency purposes, this previously determined baseline period would be ideal for the current GHG banking project. However, the GHG baseline period is limited to 24 months per Rule 2301; therefore, the District will use the most recent 24 month period of the previously determined baseline period. The baseline period is thus the calendar years 2004 and 2005. Further, the annual amount of fuel consumed by the furnace varied by only small amounts year to year since the furnace ran at a consistent load on an annual basis; therefore, each consecutive 24 month period in the 60 months prior to the date the emission reduction occurred results in very similar fuel usages.



**D. Historical Actual Emissions (HAE)**

Historical Actual Emissions (HAE) are emissions:

<b>HAE</b>				
<b>Pollutant</b>	<b>EF1 (metric ton/MMBtu)</b>	<b>Baseline Throughput (gal-fuel/year)</b>	<b>HHV Fuel (MMBtu/gal)</b>	<b>HAE (metric ton/year)</b>
CO2e	0.0754	8,755,538	0.150	99,025

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

The Post Project Potential to Emit (PE2) is based on the following calculation:

$$\text{PE2} = \text{EF2 (lb/MMBtu)} \times \text{Pre-Project Potential Heat Input (MMBtu/yr)} \\ \times \text{Post Project Potential Throughput Increase (\%)}$$

Where,

$$\text{Pre-Project Potential Heat Input} = \text{Baseline Fuel Use (gal/yr)} \\ \times \text{1/Baseline Throughput (ton/year)} \\ \times \text{Fuel Oil HHV (MMBtu/gal)} \\ \times \text{Pre-Project Potential Throughput (ton/year)}$$

$$\text{Pre-Project Potential Heat Input} = 8,755,538 \text{ gal/year} \times \text{1/190,086 ton/year} \\ \times 0.150 \text{ MMBtu/gal} \times 219,000 \text{ ton/year}$$

$$\text{Pre-Project Potential Heat Input} = 1,513,102 \text{ MMBtu/year}$$

<b>PE2</b>				
<b>Pollutant</b>	<b>EF2 (metric ton/MMBtu)</b>	<b>Pre-Project Potential Baseline Heat Input (MMBtu/year)</b>	<b>Post Project Potential Throughput Increase (%)</b>	<b>PE2 (metric tons/year)</b>
CO2e	0.0531	1,513,102	16.67	93,739

## G. Emission Reductions Eligible for Banking

Emission reduction eligible for banking = HAE - PE2

Utilizing the HAE and PE2 calculated above, the emission reductions eligible for banking is summarized in the table below:

<b>Emission Reductions Eligible for Banking</b>			
<b>Pollutant</b>	<b>HAE (metric tons/year)</b>	<b>PE2 (metric tons/year)</b>	<b>ERC (metric tons/year)</b>
CO2e	99,025	93,739	5,286

## VI. Compliance:

### Rule 2301 - Emission Reduction Credit Banking

#### **Section 4.0 - Eligibility of Emission Reductions**

Per Section 4.5, the following criteria shall be met in order to deem GHG emission reductions eligible for banking:

4.5.1 The GHG emission reduction must have actually occurred on or after January 1, 2005, except as allowed in specific CARB approved GHG emission reduction project protocols.

The ATC authorizing the reductions was issued on June 5, 2006. The modified furnace began operation on May 1, 2008. Therefore, the GHG reductions occurred after January 1, 2005.

4.5.2 The GHG emission reductions must have occurred within the San Joaquin Valley Unified Air Pollution Control District.

The GHG reductions occurred at District facility C-598, located in Kingsburg, CA. Therefore, the reductions occurred within the District.

4.5.3 The GHG emission reductions are real, surplus, permanent, quantifiable, and enforceable, except as provided in Section 4.5.5.

#### Real

The emissions reductions are real since they were generated by the physical modification of converting the furnace from fuel oil firing to natural gas firing; and that the AERs were based on the difference between the HAE and PE2:

### Surplus

4.5.3.1 Greenhouse gas emission reductions that occur at a facility subject to the CARB greenhouse gas cap and trade regulation on or after January 1, 2012 are not surplus.

4.5.3.2 Greenhouse gas emission reductions that occur as a result of law, rule, or regulation that required the greenhouse gas emission reduction are not surplus.

4.5.3.3 Greenhouse gas emission reductions that occur due to an action taken by a facility that is not the result of any greenhouse gas emission reduction requirement are surplus and additional of all greenhouse gas reduction requirements. Such emission reduction credit certificates shall be identified as specified in Section 6.15.2.

4.5.3.4 Greenhouse gas emission reductions that occur due to an action taken by a facility that is not the result of any requirement, including any requirement that is not intended to control greenhouse gases, are surplus and additional of all requirements. Such emission reduction credit certificates shall be identified as specified in Section 6.15.3.

The GHG reductions satisfy the surplus requirements of Sections 4.5.3.1 through 4.5.3.4. The reductions are surplus of all permit and applicable rule requirements, i.e. any regulatory requirement, as there are no required GHG emission reductions for existing units in any regulation applicable to the permit unit.

### Permanent

For this application the emission reduction was generated due to process improvements. The changes are major physical changes where the facility cannot revert back to the old technology without first obtaining an Authority to Construct permit. Since the emission reductions were generated by a process improvement, and not a shutdown or curtailment of the operation, the geographical boundary of the emission reduction is not as not important in determining if the emission reduction is permanent. For process improvements there is no reasonable probability that the emission reductions generated by this project could result in emission increases at glass plants elsewhere.

### Quantifiable

The reductions are quantifiable since they were calculated from historic production and fuel use data, EPA established EFs, permitted limits, and methods according to District Rule 2301.

### Enforceable

The reductions are enforceable since the PTO has been modified. Operation not according to the requirements of the permit would subject the permittee to enforcement actions and/or require a PTO modification.

4.5.4 Greenhouse gas emission reductions are calculated as the difference between the historic annual average GHG emissions (as CO<sub>2</sub>E) calculated using the consecutive 24 month period immediately prior to the date the emission reduction occurred, or another consecutive 24 month period in the 60 months prior to the date the emission reduction occurred if determined by the APCO as being more representative of normal operations, and the potential greenhouse gas emissions (as CO<sub>2</sub>E) after the project is complete, except as provided in section 4.5.5.

As described in Section 5.C above, the baseline period is the calendar years 2004 and 2005.

4.5.5 GHG emission reductions proposed to be quantified using CARB approved emission reduction project protocols shall be calculated in accordance with the applicable protocol.

The GHG reductions were not proposed to be quantified using CARB approved emission reduction project protocols.

4.5.6 ERCs shall be made enforceable through permit conditions. If the district, pursuant to state laws, is prohibited from permitting the emission unit, the source creating the GHG emission reduction shall execute a legal binding contract with the District which ensures that the emission reductions will be generated in accordance with the provisions of this rule, and shall continue for the reasonably expected life of the proposed equipment, operation, or source.

The GHGs reductions calculated are those based on enforceable permit conditions, e.g. the requirement to discontinue the use of fuel oil.

## **Section 5.0 - ERC Application Procedures**

5.5.2 For GHG emission reductions occurring prior to 1/19/12, applications for ERCs must be submitted by 7/19/12. The application to bank the GHG ERCs was received on 7/16/12; therefore, the application is timely.

## **Section 6.0 - Registration of ERC Certificates**

The APCO may only grant an ERC Certificate after the emission reductions have actually occurred upon satisfaction of the following applicable provisions:

6.14 Greenhouse gas emission reductions shall be banked as metric tons of CO<sub>2</sub>E per year, rounded to the nearest metric ton.

The draft ERCs are identified as metric tons of CO<sub>2</sub>e per year, rounded to the nearest metric ton.

6.15 Greenhouse gas emission reduction certificates shall include a notation that indicates how the emission reductions were quantified, as follows:

6.15.3 Emission reductions that are surplus of any regulatory requirement pursuant to Section 4.5.3.4 shall include the following notation "This emission reduction is surplus and additional to all applicable regulatory requirements."

The reductions are surplus of any regulatory requirement; therefore the above-identified notation will be added to the ERC certificate.

Compliance with Rule 2301 has been demonstrated and no adjustments are required under this Rule.

**VII. Recommendation:**

The District recommends that ERC Certificates be issued to Guardian for the amount indicated in Section V.H of this evaluation.

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Appendices:

Appendix A, Previous PTO #C-598-4-7  
Appendix B, Post-Project Permit #C-598-4-8  
Appendix C, Draft ERC Certificate

**Appendix A**

*Previous PTO (#C-598-4-7)*

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-598-4-7

EXPIRATION DATE: 01/31/2008

## EQUIPMENT DESCRIPTION:

182.0 MM BTU/HR FLOAT GLASS MANUFACTURING LINE TO INCLUDE: A MELTING FURNACE, TIN FLOAT BATH, ANNEALING LEHR, A UNITED MCGILL 3-500 MODULAR ELECTROSTATIC PRECIPITATOR, AND IS EQUIPPED WITH A CONTINUOUS EMISSIONS MONITOR.

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (last amended 12/17/92). [District Rule 1081; PSD SJ 76-44] Federally Enforceable Through Title V Permit
3. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081; PSD SJ 76-44] Federally Enforceable Through Title V Permit
4. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
5. Source tests shall be conducted at maximum operating capacity for a given year. In no case less than 360 tons glass pulled per day or 109 MMBtu/hr. [District Rule 4354; PSD SJ 76-44] Federally Enforceable Through Title V Permit
6. The glass pull rate shall not exceed 600 tons per day. [District NSR Rule; District Rule 4354] Federally Enforceable Through Title V Permit
7. The melting furnace shall be fired only on fuel oil with grades #6 or lower. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Sulfur content of the fuel oil shall not exceed 0.6% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Fuel oil consumption shall not exceed 1320 gallons per hour nor 11,563,000 gallons per year, except as otherwise provided in this document. [District NSR Rule] Federally Enforceable Through Title V Permit
10. Records shall be maintained and shall contain: the daily glass pull rate; daily fuel oil consumption; daily raw material throughput; the amount of saltcake usage per 1000 pounds of sand; the occurrence and duration of any start-up, shutdown, malfunction, performance testing, calibrations, checks, adjustments, or any periods during which the CEM is inoperative; and the CEM emission measurements. [District Rules 1070 and Rule 1080, section 7.3] Federally Enforceable Through Title V Permit
11. A continuous emission monitoring (CEM) shall be operated and maintained in calibration. Reports of CEM data, in accordance with Rule 1080 section 8.0 (12/17/92) for NO<sub>x</sub>, SO<sub>x</sub>, O<sub>2</sub> and opacity, shall be submitted to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
12. The CEM system shall meet EPA 40 CFR Part 60, Appendix B - Performance Specifications and Appendix F - Quality Assurance Procedures. [District Rule 1080 and 4354] Federally Enforceable Through Title V Permit
13. A fuel oil analysis, to include sulfur content, shall be taken at the time of testing and the results of the analysis shall be submitted to the District along with the source test results. [District Rule 1081] 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.

14. The data acquisition system must be maintained and operated to enable the District computer system to access the CEM data. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Source testing to measure particulate matter including condensibles and particulate matter not including condensibles, shall be conducted using EPA Method 201A in combination with EPA Method 202, and in accordance with Rule 1081, section 6.0 (12/16/93). [District Rule 1081; PSD SJ 76-44] Federally Enforceable Through Title V Permit
16. Source testing to measure oxides of sulfur (as SO<sub>2</sub>) shall be conducted using EPA Method 8, or ARB Method 100, and in accordance with Rule 1081, section 6.0 (12/16/93). [District Rules 4801 and 1081; PSD SJ 76-44] Federally Enforceable Through Title V Permit
17. Source testing to measure oxides of nitrogen (as NO<sub>2</sub>) shall be conducted using EPA Method 7E, or ARB Method 100, and in accordance with Rule 1081, section 6.0 (12/16/93). [District Rules 4354 and 1081; PSD SJ 76-44] Federally Enforceable Through Title V Permit
18. Emissions shall not exceed 22 lb PM/hr including condensibles, 7.2 lb PM/hr not including condensibles, 140 lb SO<sub>x</sub>/hr (as SO<sub>2</sub>), 290 lb NO<sub>x</sub>/hr (as NO<sub>2</sub>), 5 lb CO/1000 gallons fuel, nor 1.13 lb VOC/1000 gallons fuel. [District NSR Rule; PSD SJ 76-44] Federally Enforceable Through Title V Permit
19. NO<sub>x</sub> emissions rate shall not exceed calculated value as described in Section 5.4 of District Rule 4354 (as amended 02/21/02). [District Rule 4354] Federally Enforceable Through Title V Permit
20. Source testing for NO<sub>x</sub>, SO<sub>x</sub>, CO, VOC, and PM<sub>10</sub> shall be performed on an annual basis. [District Rule 4354, 6.0; District 2520, 9.3.2; PSD SJ 76-44] Federally Enforceable Through Title V Permit
21. CEMS data shall be reduced according to the procedures established in 40 CFR Part 51, Appendix P, or by other methods deemed equivalent by mutual agreement with the District, CARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
22. Any violation of an emission standard must be reported to the APCO within 96 hours of detection. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
23. Any breakdown in the continuous emission monitors shall be reported as soon as reasonably possible, but no later than eight hours after detection. The Owner/operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
24. Fuel oil consumption shall not exceed 1228 gallons per hour on an average daily basis, until PSD SJ 76-44 Special Condition VIII is modified. [PSD SJ 76-44] Federally Enforceable Through Title V Permit
25. The facility shall not use commercial arsenic as a raw material in the production process. [40 CFR 61, Subpart N] Federally Enforceable Through Title V Permit
26. With approval from EPA, Guardian Industries Corporation may choose to conduct performance tests at production rates less than maximum operating capacity provided that actual plant production does not exceed the test rate. An increase in production levels beyond the maximum tested rate requires approval by EPA prior to such production increases. [PSD SJ 76-44] Federally Enforceable Through Title V Permit
27. The amount of saltcake (NaSO<sub>4</sub>) in the batch formula shall not exceed 15 pounds per 1000 pounds of sand unless EPA approves a higher saltcake usage rate. [PSD SJ 76-44] Federally Enforceable Through Title V Permit
28. All emissions from the furnace shall be ducted to the electrostatic precipitator. [District NSR Rule and PSD SJ 76-44] Federally Enforceable Through Title V Permit
29. To ensure compliance with the PM emission limit, daily records of the transformers/rectifiers (T/R) primary and secondary voltage and current readings shall be maintained and made readily available for District inspection upon request. [District Rule 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
30. Source testing to measure VOCs shall be conducted using EPA Method 25A, expressed in terms of carbon, and in accordance with District Rule 1081, Section 6.0 (12/16/93). [District Rules 1081 and 4354, 6.5] 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.



31. Source testing to measure CO shall be conducted using EPA Method 10 or ARB Method 100, and in accordance with Rule 1081, section 6.0 (12/16/93). [District Rules 4354 and 1081] Federally Enforceable Through Title V Permit
32. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (12/16/93), of 3 one-hour test runs for PM10; and the arithmetic mean of 3 forty-minute test runs for NOx and CO. This mean shall be multiplied by the appropriate factor to determine compliance with the emission limits. [District Rule 2520, 9.3.2; District Rule 4354, 5.5.1] Federally Enforceable Through Title V Permit
33. Permittee shall maintain an operating log for each furnace that includes: on a monthly basis, the total hours of operation; type and quantity of fuel used in each furnace; and the quantity of glass pulled. The owner shall maintain records of source tests and operating parameters established during initial source test, maintenance, repair, malfunction, idling, shutdown, and startup. This information shall be made available on site during normal business hours from Monday through Friday for a period of five years, and submitted to the APCO upon request [District Rule 4354, 6.3.1] Federally Enforceable Through Title V Permit
34. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
35. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
36. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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

**Appendix B**

*Post Project Permit (#C-598-4-8)*

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-598-4-8

**EXPIRATION DATE:** 01/31/2008

## **EQUIPMENT DESCRIPTION:**

212.0 MMBTU/HR FLOAT GLASS MANUFACTURING LINE TO INCLUDE: A REGENERATIVE GLASS MELTING FURNACE CONTROLLED BY HIGH TEMPERATURE DRY SCRUBBER (C/U1), AN ELECTROSTATIC PRECIPITATOR (C/U2), AND A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION (C/U31), TIN FLOAT BATH, ANNEALING LEHR, AND A CONTINUOUS EMISSIONS MONITOR (CEMS)

## **PERMIT UNIT REQUIREMENTS**

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with 40 CFR 60.8(e) and EPA test methods and shall be equipped with safe permanent provisions to sample stack gases. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. [District Rule 1081; PSD SJ 76-44, X.F.4] Federally Enforceable Through Title V Permit
3. The applicant shall install, maintain, and operate a continuous emissions monitoring system (CEMS) to measure stack gas NO<sub>x</sub>, SO<sub>x</sub>, and O<sub>2</sub> concentration and stack gas volumetric flow rate and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, Performance Specifications 2 and 3 or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. The CEM systems shall also be operated, maintained, and calibrated pursuant to the requirements of 40 CFR 60.7(c) and 40 CFR 60.13. [District Rules 1080, 6.5 and 6.6, 2201, and 4354, 5.8 and 6.6; PSD SJ 76-44, X.C.1 and X.C.2] Federally Enforceable Through Title V Permit
4. The applicant shall install, maintain, and operate a continuous opacity monitor (COM) and shall meet the performance specification requirements in 40 CFR, Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rules 1080, 6.7 and 2201 and 40 CFR part 64] Federally Enforceable Through Title V Permit
5. Permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F, Procedure 1. [District Rules 1080 and 4354, 6.6.1; PSD SJ 76-44, X.C.2 and X.C.5] Federally Enforceable Through Title V Permit
6. The facility shall install and 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
7. 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
8. Permittee shall comply with all requirements of Section 5.2.1 of District Rule 4354 (2/21/02) during startup. Startup exemption time shall not exceed 208 days, beginning from the time of primary combustion system activation. [District Rule 4354, 5.2.1.2; PSD SJ 76-44, X.E.4] 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.

9. 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, 5.2.2] Federally Enforceable Through Title V Permit
10. The emission control systems (ECS), C/Us 1, 2, and 3 shall be in operation at all times during normal operations, and whenever technologically feasible including during startup, idling and shutdown conditions. [District Rule 4354, 5.2.3, 5.3.2, 5.4.1; PSD SJ 76-44, X.E.7] Federally Enforceable Through Title V Permit
11. The furnace shall be in compliance with all requirements of District Rule 4354 (2/21/02) by the end of startup. [District Rule 4354, 7.0] Federally Enforceable Through Title V Permit
12. Furnace shutdown shall not exceed 20 days, measured from the time furnace operations drop below the idle threshold specified in Section 3.9 of District Rule 4354 (2/21/02) to when all emissions from the furnace cease. [District Rule 4354, 5.3.1] Federally Enforceable Through Title V Permit
13. NO<sub>x</sub>, CO and VOC emissions during idling shall not exceed the emissions limits as calculated using the following equation: NO<sub>x</sub>, CO, or VOC (lb/day) = (Applicable Tier 1 or Tier 2 emission limit (in lbs/ton)) x (Furnace permitted production capacity (in tons/day)). [District Rule 4354, 5.4.2; PSD SJ 76-44, X.E.2] Federally Enforceable Through Title V Permit
14. All emissions from the furnace shall be ducted to the high temperature (dry) scrubber (C/U1), the electrostatic precipitator (C/U2), and the selective catalytic reduction (SCR) system (C/U3), prior to exhausting into the atmosphere. [District Rule 2201; PSD SJ 76-44, X.B.2] Federally Enforceable Through Title V Permit
15. The facility shall not use commercial arsenic as a raw material in the production process. [40 CFR 61, Subpart N] Federally Enforceable Through Title V Permit
16. The furnace shall be fired exclusively on PUC quality natural gas or LPG as a backup fuel. [District Rule 2201; PSD SJ 76-44, X.I.1] Federally Enforceable Through Title V Permit
17. The glass pull rate shall not exceed 700 tons per day. [District NSR Rule and District Rule 4354, 6.1.1.1; PSD SJ 76-44, X.D.1] Federally Enforceable Through Title V Permit
18. Start-up is defined as the period of time, after initial construction or a furnace rebuild, during which a glass melting furnace is heated to operating temperature by the primary furnace combustion system and instrumentation are brought to stabilization. Shutdown is defined as the period of time during which a glass melting furnace is purposely allowed to cool from operating temperature and molten glass is removed from the tank for the purpose of a furnace rebuild. Idling is defined as the operation of the furnace at less than 25 percent of the permitted production capacity or fuel use capacity as stated on the Permit to Operate. [District Rule 4354, 3.9, 3.21, 3.22; PSD SJ 76-44, X.E.4, X.E.5, and X.E.6] Federally Enforceable Through Title V Permit
19. NO<sub>x</sub> emissions from the glass melting furnace, except during periods of start-up, shutdown, and idling, shall not exceed any of the following limits: 107.92 lb/hr or 3.70 lb/ton of glass pulled, based on a block 24-hour average; or 3.25 lb/ton of glass pulled, based on a rolling 30-day average. [District Rules 2201 and 4354, 5.1; PSD SJ 76-44, X.D.2] Federally Enforceable Through Title V Permit
20. SO<sub>x</sub> emissions from the glass melting furnace, except during periods of start-up, shutdown, and idling, shall not exceed any of the following limits: 49.58 lb/hr or 1.7 lb/ton of glass pulled, based on a block 24-hour average; or 1.2 lb/ton of glass pulled, based on a rolling 30-day average. [District Rule 2201; PSD SJ 76-44, X.D.3] Federally Enforceable Through Title V Permit
21. PM<sub>10</sub> emissions from the glass melting furnace, except during periods of start-up, shutdown, and idling, shall not exceed either of the following limits: 20.42 lb/hr or 0.7 lb/ton of glass pulled. [District Rules 2201 and 4202; PSD SJ 76-44, X.D.4] Federally Enforceable Through Title V Permit
22. CO emissions from the glass melting furnace, except during periods of start-up, shutdown, and idling, shall not exceed either of the following limits: 22.05 lb/hr or 101 ppmv @ 8% O<sub>2</sub> (equivalent to 0.104 lb/MMBtu), based on a 3-hour rolling average. [District Rules 2201 and 4354, 5.1, 5.5.1] 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.

23. VOC emissions from the glass melting furnace, except during periods of start-up, shutdown, and idling, shall not exceed either of the following limits: 0.83 lb/hr or 6.6 ppmv VOC @ 8% O<sub>2</sub> (equivalent to 0.0039 lb/MMBtu), based on a 3-hour rolling average. [District Rules 2201 and 4354, 5.1, 5.5.1] Federally Enforceable Through Title V Permit
24. CO emissions from the glass melting furnace exhaust shall not exceed 100 tons per year, based on a 12-month rolling average [District Rule 2201 and PSD SJ 76-44 X.D.5] Federally Enforceable Through Title V Permit
25. Ammonia (NH<sub>3</sub>) emissions shall not exceed either of the following limits: 1.27 lb/hr or 10 ppmvd @ 8% O<sub>2</sub>, based on a 24 hour rolling average. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
26. Each one hour period will commence on the hour. The three hour average will be compiled from the three most recent one-hour periods. The block 24-four hour average will be compiled of 24 one-hour periods, daily, starting from 12:00 AM to 11:59 PM, excluding periods of system calibration. [District Rules 2201 and 4354, 3.2] Federally Enforceable Through Title V Permit
27. Compliance with the ammonia emission limits shall be demonstrated utilizing one of the following procedures: 1) calculate the daily ammonia emissions using the following equation: (ppmvd @ 8% O<sub>2</sub>) = ((a - (b x c/1,000,000)) x (1,000,000 / b)) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO<sub>x</sub> concentration ppmvd @ 8% O<sub>2</sub> across the catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip; 2.) Utilize another District-approved calculation method using measured surrogate parameters to determine the daily ammonia emissions in ppmvd @ 8% O<sub>2</sub>. If this option is chosen, the permittee shall submit a detailed calculation protocol for District approval at least 60 days prior to commencement of operation; 3.) Alternatively, the permittee may utilize a continuous in-stack ammonia monitor to verify compliance with the ammonia emissions limit. If this option is chosen, the permittee shall submit a monitoring plan for District approval at least 60 days prior to commencement of operation. [District Rule 4102]
28. Source testing to measure the NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> emission rates (lb/hr and lb/ton of glass pulled) shall be conducted annually (within 60 days if the initial performance test anniversary). [District Rules 1081, 2520, and 4354, 6.4; PSD SJ 76-44, X.F.1] Federally Enforceable Through Title V Permit
29. Source testing to measure the CO emission rates (lb/hr and either lb/MMBtu or ppmvd @ 8% O<sub>2</sub>) shall be conducted annually (within 60 days if the initial performance test anniversary). [District Rules 1081, 2520, and 4354, 6.4; PSD SJ 76-44, X.F.1] Federally Enforceable Through Title V Permit
30. Source testing to measure the VOC and Ammonia emission rates (lb/hr and either lb/MMBtu or ppmvd @ 8% O<sub>2</sub>) shall be conducted annually (within 60 days if the initial performance test anniversary). [District Rules 1081, 2520, and 4354, 6.4] Federally Enforceable Through Title V Permit
31. Source tests shall be conducted at a minimum glass production pull rate equivalent to 90% of the maximum glass production pull rate achieved during the last year, unless otherwise approved by EPA. In no case less than 420 tons glass pulled per day or 127.2 MMBtu/hr. [District Rule 4354, 6.5.2; PSD SJ 76-44, X.F.6] Federally Enforceable Through Title V Permit
32. Upon written request from the Permittee, and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than 90% of maximum glass production pull rate achieved during the last year. [PSD SJ 76-44, X.F.7] Federally Enforceable Through Title V Permit
33. Compliance demonstration (source testing) shall be District witnessed or authorized and samples shall be collected by a certified testing laboratory. Source testing shall be conducted using the test methods and procedures specified in this permit. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081; PSD SJ 76-44, X.F.2 and X.F.5] Federally Enforceable Through Title V Permit
34. Source testing to measure oxides of nitrogen (as NO<sub>2</sub>) (ppmy) shall be conducted using EPA Method 7E, or ARB Method 100, or oxides of nitrogen (as NO<sub>2</sub>) (heat input basis) shall be conducted using EPA Method 19 and in accordance with Rule 1081, section 6.0 (12/16/93). [District Rules 1081 and 4354, 6.5.1.1 and 6.5.1.2; PSD SJ 76-44, X.F.3.a and X.F.3.b] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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35. The initial performance test conducted after furnace startup shall use the test procedures for a 'high NO<sub>2</sub> emission site,' as specified in San Diego Test Method 100, to measure NO<sub>2</sub> emissions. The source shall be classified as either a 'low' or 'high' NO<sub>2</sub> emission site based on these test results. If the emission source is classified as a: a) 'high NO<sub>2</sub> emission site,' then each subsequent performance test shall use the test procedures for a 'high NO<sub>2</sub> emission site,' as specified in San Diego Test Method 100. b) 'low NO<sub>2</sub> emission site,' then the test procedures for a 'high NO<sub>2</sub> emission site,' as specified in San Diego Test Method 100, shall be performed once every five years to verify the source's classification as a 'low NO<sub>2</sub> emission site. [PSD SJ 76-44, X.F.3.a and X.F.3.b] Federally Enforceable Through Title V Permit
36. Source testing to measure oxides of sulfur (as SO<sub>2</sub>) shall be conducted using EPA Method 8 or EPA Method 6C, and in accordance with Rule 1081, section 6.0 (12/16/93). [District Rules 1081 and 4801; PSD SJ 76-44, X.F.3.c] Federally Enforceable Through Title V Permit
37. Source testing to measure particulate matter (PM<sub>10</sub>) including condensibles, shall be conducted using EPA Method 201A in combination with EPA Method 202, and in accordance with Rule 1081, section 6.0 (12/16/93). [District Rule 1081; PSD SJ 76-44, X.F.3.d] Federally Enforceable Through Title V Permit
38. Source testing to measure Carbon Monoxide (CO) (ppmv) shall be conducted using EPA Method 10 or ARB Method 100, and in accordance with Rule 1081, section 6.0 (12/16/93). [District Rules 1081 and 4354, 6.5.1.3; PSD SJ 76-44, X.F.3.e] Federally Enforceable Through Title V Permit
39. Source testing to measure Volatile Organic Compounds (VOC) (ppmv) shall be conducted using EPA Method 25A, expressed in terms of carbon or other SIP approved Rule 4354 test methods, and in accordance with District Rule 1081, Section 6.0 (12/16/93). [District Rules 1081 and 4354, 6.5.1.4] Federally Enforceable Through Title V Permit
40. Source testing to measure stack gas oxygen shall be conducted using EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4354, 6.5.1.5; PSD SJ 76-44, X.F.3] Federally Enforceable Through Title V Permit
41. Source testing to measure ammonia shall be conducted using BAAQMD ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
42. 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
43. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2 and 40 CFR 60.13; PSD SJ 76-44, X.C.4] Federally Enforceable Through Title V Permit
44. Cylinder Gas Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and compliance source testing are performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080 and 40 CFR 60 Appendix F; PSD SJ 76-44, X.F.8] Federally Enforceable Through Title V Permit
45. Any violation of an emission standard, as shown by the stack-monitoring system, shall be reported to the APCO within 96 hours of detection. [District Rule 1080, 9.0; PSD SJ 76-44, X.G.5] Federally Enforceable Through Title V Permit
46. Any breakdown in the continuous emission monitors shall be reported as soon as reasonably possible, but no later than eight hours after detection, unless the owner or operator demonstrates to the APCO's satisfaction that a longer reporting period was necessary, and shall initiate repairs. The Owner/operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
47. Permittee shall maintain CEMS records that contain the following: the occurrence and duration of any or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [District Rule 1080, 8.0; PSD SJ 76-44, X.G.1] 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.

48. Permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions; nature and cause of excess (averaging period used for data reporting shall correspond to the averaging period for each respective emission standard); corrective actions taken and preventive measures adopted; applicable time and date of each period during a CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred or when the CEMS has not been inoperative, repaired, or adjusted. [District Rule 1080, 8.0; PSD SJ 76-44, X.G.2] Federally Enforceable Through Title V Permit
49. Permittee shall establish parameters for primary and secondary voltage and current, which provides a reasonable assurance of ongoing compliance with emission limitations stated in this permit. The initial parameters shall be established using at least 6 months of historical operating data and manufacturer/supplier recommendations. These parameters shall be reviewed annually and revised if necessary based on PM10 source test result data, historical operating data and manufacturer/supplier recommendations. [40 CFR part 64; PSD SJ 76-44, X.G.9] Federally Enforceable Through Title V Permit
50. During each day of operation, the permittee shall record electrostatic precipitator voltage and current readings and compare the readings with the acceptable range of current and voltage levels established. Upon detecting any excursion from the acceptable range of current or voltage readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable [40 CFR part 64; PSD SJ 76-44, X.G.10] Federally Enforceable Through Title V Permit
51. Permittee shall maintain daily records of the total hours of operation, type and quantity of fuel used, and the quantity of glass pulled. The permittee shall also maintain records of all source tests, operating parameters established during source testing, all maintenance and repair performed, any periods of malfunction, and all periods of startup, idling, and shutdown. This information shall be made available on site during normal business hours from Monday through Friday, and submitted to the APCO upon request. [District Rules 1070 and 4354, 6.3.2; PSD SJ 76-44, X.E.3, X.G.7, and X.I.2] Federally Enforceable Through Title V Permit
52. Permittee shall maintain daily records of NOx and SOx emission rates in lb/ton of glass pulled to demonstrate compliance with the NOx and SOx emission limits. [District Rules 1070, 2201, and 4354; PSD SJ 76-44, X.G.8] Federally Enforceable Through Title V Permit
53. Permittee shall maintain records of NOx and SOx emission rates in lb/ton of glass pulled on a "30-day rolling average" to demonstrate compliance with the NOx and SOx emission limits. [District Rules 1070, 2201, and 4354] Federally Enforceable Through Title V Permit
54. Records shall be maintained and shall contain: the occurrence and duration of any malfunction, performance testing, calibrations, checks, adjustments, or any periods during which the CEM is inoperative; and the CEM emission measurements. [District Rule 1080, 7.3; PSD SJ 76-44, X.G.1] Federally Enforceable Through Title V Permit
55. All records required by this permit shall be maintained, retained on-site for a period of at least five years and shall be made readily available for District inspection upon request. [District Rules 1070, 2201, and 4354; PSD SJ 76-44, X.G.6] Federally Enforceable Through Title V Permit
56. The EPA shall be notified by facsimile or electronic mail transmission within two (2) working days following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in the PSD permit. In addition, the EPA shall be notified in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in the PSD permit, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in Section IV.B of the PSD permit. [PSD SJ 76-44, IV.A, IV.B, and IV.C] Federally Enforceable Through Title V Permit

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

**Appendix C**

*Draft ERC Certificate*



San Joaquin Valley  
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

**Emission Reduction Credit Certificate**  
**C1122264-58-24**

ISSUED TO: GUARDIAN INDUSTRIES CORP  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: 11535 E MOUNTAIN VIEW AVE  
KINGSBURG, CA 93631

**For CO<sub>2</sub>e Reduction In The Amount Of:**

**5286 metric tons / year**

Conditions Attached

**Method Of Reduction**

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

**Cold tank repair changing from No. 6 heavy oil to natural gas.**

**Emission Reduction Qualification Criteria**

This emission reduction is surplus and additional to all applicable regulatory requirements.

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services