

**SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT
CENTRAL REGION
1990 E. Gettysburg
Fresno, CA 93726
(559) 230-5950**

STAFF REPORT

September 16, 2026

SHORT VARIANCE

DOCKET No. C-26-19S

PETITIONER: Guardian Industries, LLC
11535 E. Mountain View Ave.
Kingsburg, CA 93631

LOCATION: Same as above

RULE VIOLATIONS: 1080 – *Stack Monitoring*
2070 – *Standards for Granting Applications*
2201 – *New and Modified Stationary Source Review Rule*
2520 – *Federally Mandated Operating Permits*
4101 – *Visible Emissions*
4354 – *Glass Melting Furnaces*
California Health and Safety Code section 41701

PERMIT NUMBERS: C-598-0-6 and C-598-4-21

EPA AIRS NUMBER: 06-019-C0598

NOV NUMBER: N/A

TYPE OF BUSINESS: Float Glass Manufacturer

NATURE OF THE PROBLEM:

Guardian Industries, LLC, (GUARDIAN) operates a 212 MMBtu/hour float glass furnace with associated emission control systems (ECS) including a dry scrubber, an electrostatic precipitator (EP), and a selective catalytic reduction (SCR) system. Emissions from the stack are monitored by a Continuous Emissions Monitoring System (CEMS) and Continuous Opacity Monitoring System (COMS).

The furnace utilizes a pair of heat regenerators, which consist of refractory brick arranged in a checkerboard pattern, to capture waste heat from the exhaust and use it to preheat the incoming combustion air. Exhaust gas passes through the duct on one side, heating the brick and cooling the gas. The air flow then reverses and the exhaust duct becomes the intake duct. When the air flow is reversed the refractory brick releases its heat into the incoming air, allowing for higher furnace temperatures with less fuel use. Also, by capturing the waste heat, the exhaust gases are cooled before entering the ECS where excessive heat could trigger a bypass of the control systems.

As exhaust gases pass over the regenerator checker packs, precipitates of sulfates and other products of combustion are deposited on the refractory surface. Gradually, the sulfate deposits build up and reduce the system's efficiency and can lead to unsafe conditions in the furnace.

At regular intervals, it is necessary to remove the built-up deposits. This maintenance is done by utilizing auxiliary natural gas fired burners. The burners are moved manually from port to port along the furnace, heating the checker packs and melting the sulfates and other contaminants away from the refractory where they drip to the bottom of the regenerator and are later cleaned out manually. When the melted deposits are removed from the regenerator, the pressure difference in the furnace could push debris material through the exhaust resulting in excess visible emissions.

While the auxiliary burners are used during the cleanout, it is likely the overall air/fuel ratio in the furnace will change, causing brief periods of excess CO, SOx and possibly NOx emissions. In addition, a safety setpoint causes the ECS to automatically bypass if the incoming exhaust gas exceeds 860 deg F for more than 16 minutes. GUARDIAN will attempt to complete the cleanout without triggering a bypass. However, in order to achieve an effective cleanout, it may be necessary to operate at temperatures that could trigger a bypass.

PETITIONER'S REQUEST:

GUARDIAN has requested a short variance from the applicable requirements of District Rules 1080, 2070, 2201, 2520, 4101, 4354, and California Health and Safety Code (CH&SC) section 41701, in addition to the applicable conditions of the subject permits. The requested short variance will be for a consecutive 25-days to occur sometime between September 28, 2026, to October 28, 2026. If granted, the variance would allow the continued operation of the regenerative glass melting furnace and glass manufacturing with excess NOx, SOx, CO and visible emissions while the work is performed.

EXCESS EMISSIONS:

Based on historical emissions data collected from prior regenerator burn offs, GUARDIAN has estimated that excess emissions during the variance period will not exceed **2,000 lbs. of CO, 2,000 lbs. of NOx, and 2,000 lbs. of SOx.** If the emission control equipment is bypassed then excess visible emission could be up to 95% opacity.

IMMEDIATE COMPLIANCE:

GUARDIAN is currently in compliance.

COMMENTS ON REQUIRED FINDINGS:

1. ***That the petitioner for a variance is, or will be, in violation of Section 41701 or of any rule, regulation, or order of the District.***

Operation of the facility with excess NOx, SOx, CO, and visible emissions will result in a violation of applicable requirements of District Rules 1080, 2010, 2070, 2201, 2520, 4101, 4354, and CH&SC section 41701 in addition to the applicable conditions of the subject permits.

2. ***That, due to conditions beyond the reasonable control of the petitioner, requiring compliance would result in either (1) an arbitrary or unreasonable taking of property, or (2) the practical closing and elimination of a lawful business.***

If this variance is not granted, the only option would be to attempt to shut down the float glass furnace. A glass furnace takes several weeks to shut down and restart. The cost of lost production and potential equipment damage due to thermal stress from heating and cooling would be in excess of \$10 million.

3. *That the closing or taking would be without a corresponding benefit in reducing air contaminants.*

The closing or taking would be without a corresponding benefit in reducing air contaminants as the furnace would have to be shut down. The proposed sodium sulfate burn-off is expected to take 10 days. The shutdown of the furnace would take several days, and the startup would take several weeks. The shutdown could result in damage to the furnace as well. To start the furnace back up, GUARDIAN would have to submit a startup plan to the District and bring in a specialized crew to handle the intricacies of bringing a glass melting furnace up to temperature without causing any damage. A cold start of the furnace will produce a significant amount of emissions before the furnace comes up to temperature. During the downtime, GUARDIAN would not be able to provide their customers with product and could lose valuable market share to their competitors.

4. *That the applicant for the variance has given consideration to curtailing operations of the source in lieu of obtaining a variance.*

Curtailing operations is not an option as the furnace cannot shut down without damage occurring to the refractory. Additionally, to perform the burn-off, the furnace needs to be in operation to keep the checker packs hot. The excess emissions will be caused by products of combustion and not by materials from production, so curtailing production will not keep GUARDIAN in compliance.

5. *During the period, the variance is in effect, that the applicant will reduce excess emissions to the maximum extent feasible.*

GUARDIAN will perform the maintenance as expeditiously as practicable. GUARDIAN will keep their emissions control systems in operation during the checker pack cleaning as long as the temperature does not reach a temperature that can cause damage.

6. *During the period the variance is in effect, that the applicant will monitor or otherwise quantify emission levels from the source, if requested to do so by the District, and report these emissions levels to the District pursuant to a schedule established by the District.*

During the variance period, GUARDIAN will monitor the emissions with their CEMS/COMS. Those records will be available to the District via the CEMS/COMS polling program whereby CEMS data is sent automatically and electronically to the District. GUARDIAN will also use this data to calculate excess emissions at the conclusion of the variance period. GUARDIAN will report excess emissions to the District in the Summary Report.

GENERAL COMMENTS:

A nuisance as defined in District Rule 4102 is not expected to occur as a result of this variance. Nor would continued operations likely create an immediate threat or hazard to public health or safety.

It should be noted that the Environmental Protection Agency (EPA), which monitors major sources, might not recognize this variance, should it be granted. GUARDIAN should be aware that the EPA could take enforcement action on this matter if it deems such action is appropriate.

RECOMMENDATIONS:

Should the Central Region Hearing Board make the required findings and move to grant a short variance to GUARDIAN, the District would recommend the following conditions:

1. The variance shall be effective from September 28, 2026, to October 28, 2026, or until the scheduled work is completed and the emissions control equipment is returned to compliant operation, whichever occurs first.
2. Relief shall be granted from the requirements of the applicable sections of District Rules 1080, 2070, 2201, 2520, 4101, 4354, and CH&SC section 41701. In addition to the following permit conditions of the subject permits

C-598-0-6 Conditions 3 and 41
C-598-4-21 Conditions 2, 4, 13, 19, 24
3. The variance shall allow the continued operation of the furnace and glass manufacturing with excess NO_x, SO_x, and CO, and excess visible emissions while the regenerator checker packs are cleaned.
4. GUARDIAN shall notify the District 48 hours prior to going into bypass mode. Notification shall be sent by email to Preet Bath at preet.bath@valleyair.org.
5. Excess **CO emissions** are estimated to be no more than **2,000 pounds** over the duration of the variance period.
6. Excess **NO_x emissions** are estimated to be no more than **2,000 pounds** over the duration of the variance period.
7. Excess **SO_x emissions** are estimated to be no more than **2,000 pounds** over the duration of the variance period.
8. The excess emissions fee will be assessed at the conclusion of the variance at \$3.25 per pound. Additionally, should the total excess emissions per pollutant exceed one ton (2,000 pounds), GUARDIAN shall pay \$3.75 of mitigation fees for each pound of total excess emissions. Payment of the excess emissions fee shall occur within 30 days of being issued an invoice from the District. Payment shall be made to the District and shall be directed to the "Miscellaneous Incentive Grant – Hearing Board," account.

9. Visible emissions shall not exceed 95% opacity or Ringelmann 4 ½ for a period aggregating more than 3 minutes in any one hour during the variance period.
10. A Federal Title V deviation report shall be submitted to the District within 10 days of discovery each time a Federal Title V permit condition is violated. It should be noted that multiple deviation reports may need to be submitted during this variance period. The deviation report must be sent to the facility inspector.
11. Should the facility experience operational conditions likely to cause a public nuisance, GUARDIAN shall cease operations causing the problems and take all necessary actions to abate the problem immediately.
12. By November 11, 2026, or no later than 15 calendar days after returning the emission control systems to compliant operation, whichever occurs first, GUARDIAN shall submit to the District a summary report. If the report due date should fall on a day the District is closed, it shall be due the next business day. The report shall include the following:
 - A. A summary of all actions and activities undertaken during the variance period,
 - B. The date(s), time(s), and duration that the emission control equipment was offline,
 - C. The total duration of the bypass period,
 - D. COMS data during the variance period, and
 - E. The required certification of truth and accuracy, and completeness, signed by the designated responsible official of the limited liability company, as required by Sections 9.13.1 and 10.0 of District Rule 2520 – *Federally Mandated Operating Permits*.
13. The end of variance summary report shall be submitted to the attention of:

Shannon Moore
SJVAPCD, Compliance Department
1990 E. Gettysburg Avenue
Fresno, CA 93726
Telephone: (559) 230-5878
E-mail: shannon.moore@valleyair.org
14. Failure to comply with any condition of this variance may render the variance null and void with the possibility of enforcement action taken that may include monetary penalties.