

APPENDIX A

**Summary of Significant Comments and Responses for
Proposed Amendments to Rule 4354 (Glass Melting Furnaces)**

December 16, 2021

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

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Appendix A: Comments and Responses

December 16, 2021

**SUMMARY OF SIGNIFICANT COMMENTS
DRAFT AMENDMENTS TO RULE 4354
(GLASS MELTING FURNACES)
November 16, 2021**

The District published the proposed rule November 16, 2021 for 30-day public review and comment.

No comments were received.

**SUMMARY OF SIGNIFICANT COMMENTS
DRAFT AMENDMENTS TO RULE 4354
(GLASS MELTING FURNACES)
November 4, 2021**

The District held a public workshop to present, discuss, and receive comments on the draft amendments to Rule 4354 on November 4, 2021. Summaries of significant comments received during the public workshop and associated comment period are summarized below.

Comments were received from the following:

Ardagh Glass Inc. (Ardagh)
E&J Gallo Winery (Gallo)
Manufacturers of the Central Valley (MCCV)

1. **COMMENT:** The District should consider all costs associated with the proposed emission limits, including taking into consideration the 10% emissions penalty if a combined furnace limit is selected. (Ardagh)

RESPONSE: The District appreciates the comment and has included all appropriate and documented costs in the cost-effectiveness analysis.

2. **COMMENT:** The District should use a rolling 24-hour period for PM10 emissions measurement, rather than a 24-hour block average, since the 24-hour block average could be more punitive. (Ardagh)

RESPONSE: The District does not agree that the 24-hour block average results in a more punitive requirement. Compliance with the proposed PM10 emission limits may be demonstrated through approved EPA test methods, as outlined in Section 5.9.4 of Rule 4354.

3. **COMMENT:** Rule 4354 should account for non-standard operating conditions, including maintenance, start-up/shutdown, idling, and below-standard production for foreseen or unforeseen conditions. The District allows for such practices under the current rule, and exceptions to measurement periods for these non-standard operating conditions should continue as a part of the proposed amendments to Rule 4354. (Ardagh)

RESPONSE: District Rule 4354 currently allows for such practices under the current rule and is not proposing any changes to these provisions.

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4. **COMMENT:** The SO_x emission rate should be carefully evaluated based on the effectiveness of controls and 10% additional emissions reduction requirement under the proposed rule. (Gallo)

RESPONSE: The District appreciates the comment and is proposing a more stringent emissions limitation based on the feasibility and effectiveness of available controls.

5. **COMMENT:** Additional time and information is needed to understand the operational impacts and costs, as well as the socioeconomic impacts associated with the draft rule. (MCCV, Ardagh)

RESPONSE: The District appreciates the comments and has continued to engage with affected stakeholders to answer questions and seek additional feedback. The District has conducted engineering evaluations with costs reviewed and provided by affected operators, technology vendors and manufacturers to understand the potential costs of compliance of the proposed regulation. Additionally, the District worked closely with a third party economic consultant to understand the potential regional economic impacts from the proposed regulations. Public comments are welcomed and have been solicited beginning in December 2020, and through the latest public workshops held in September and November 2021. District staff welcome additional comment up to and including at the December public hearing for Governing Board consideration of the proposed amendments.

**SUMMARY OF SIGNIFICANT COMMENTS
DRAFT AMENDMENTS TO RULE 4354
(GLASS MELTING FURNACES)
September 30, 2021**

The District held a public workshop to present, discuss, and receive comments on the draft amendments to Rule 4354 on September 30, 2021. Summaries of significant comments received during the public workshop and associated comment period are summarized below.

Comments were received from the following:

Group Comment Letter¹
Glass Packaging Institute (GPI)
Guardian Glass (Guardian)

1. **COMMENT:** Consideration should be provided to public health and other adverse economic impacts of air pollution when weighing the technological and economic feasibility of rules with a particular focus on environmental justice implications. (Group Comment Letter)

RESPONSE: The District appreciates the comment and is proposing the regulatory amendments consistent with established state and federal requirements and guidance, and as part of ongoing efforts to meet health-based state and federal ambient air quality standards to protect public health in communities across the Valley.

2. **COMMENT:** We support the container and flat glass proposed emission limits for NO_x, PM₁₀, and SO_x. However, we recommend NO_x limits be enacted immediately as opposed to two phases in 2024 and 2029. (Group Comment Letter)

RESPONSE: The District appreciates the comment and through the proposed amendments would be establishing the most stringent emissions limitations anywhere in the nation. To ensure feasibility, the District is proposing a phased compliance schedule that achieves rapid near-term reductions in the first phase while allowing operators adequate time to design and install the next generation of very costly control technologies under the strict timeframe established under the second phase of 2029, or furnace “rebricking”, whichever comes first. Given the once-per-furnace lifetime rebricking schedules for glass manufacturing facilities, it is expected that some facilities will install, and emissions reductions will be achieved, ahead of the proposed backstop deadlines of 2024 and 2029.

¹ Comment letter was submitted by the following: CVAQ, Little Manila Rising, Mi Familia Vota, Valley Improvement Projects

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3. **COMMENT:** While we support the proposed lower emissions limits for nitrogen oxides (NOx), particulate matter 10 (PM10), and sulfur oxides (SOx), we continue to encourage direct PM2.5 emissions control limits, particularly for industrial biomass facilities. With the fast-approaching deadline to meet federal air quality standards, it is essential that emission reduction strategies be applied to all pollutants. (Group Comment Letter)

RESPONSE: The proposed Rule 4354 contains lower NOx and SOx emissions limitations (precursors to PM2.5), as well as lower emissions limits for direct PM10. The direct PM10 from glass melting furnaces is primarily PM2.5 (~97%), and SOx reductions also reduce the formation of secondary PM2.5. Therefore, the rule amendments will achieve significant reductions in direct PM2.5, as well as PM2.5 precursor emissions.

4. **COMMENT:** More stringent SOx emissions limits should be established for flat glass melting furnaces, as well as for container glass melting furnaces. (Group Comment Letter, GPI)

RESPONSE: For flat glass furnaces, the SOx emissions limit in proposed Rule 4354 will be retained at the current level required by the rule as the maximum feasible control available for the two facilities in the Valley.

5. **COMMENT:** SJVAPCD should continue improving public outreach and engagement processes, by including direct outreach community members near all glass manufacturing locations in the appropriate language. (Group Comment Letter)

RESPONSE: These amendments were developed through a public engagement process that solicited feedback from the public through a variety of forums, including workshops, meetings with affected sources and other interested parties, Citizens' Advisory Committee meetings, and community engagement through AB 617 steering committees. Public notices were also translated to Spanish, and interpretation services were available at District public meetings upon request. The District continues to work to improve public outreach, and appreciates these comments.

6. **COMMENT:** All workshops should be recorded and uploaded to an online archive readily accessible for the public to accommodate varying schedules and eliminate delays associated with email requests of recordings. (Group Comment Letter)

RESPONSE: The District appreciates the comment and is making workshop videos available to the public in order to accommodate different schedules.

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7. **COMMENT:** The compliance deadlines for Phase 1 and Phase 2 should be delayed from taking effect as proposed, and the compliance deadlines should instead shift from Jan. 1, 2024 to Jan. 1 2026 for Phase 1 NOx emissions limits, and from Jan. 1, 2029 to Jan. 1, 2031 for Phase 2 NOx emissions limits. (GPI)

RESPONSE: Per commitments in the District's *2018 PM2.5 Plan*, the emission reductions resulting from compliance with the proposed Phase I NOx emissions limits need to be achieved by the 2024 compliance deadline. However, to ensure feasibility for the even more stringent limits in the proposed amendments, the District is proposing a Phase II compliance deadline of January 1, 2030, or upon the date of the next planned furnace rebricking, whichever is sooner.

8. **COMMENT:** Glass container plants operating two different furnace systems would be required to reduce emissions to 0.75 lb/ton for both furnace designs, essentially multiplying the cost estimates outlined. We ask that those costs be reassessed prior to formal issuance of the proposed rule. (GPI)

RESPONSE: The District conducts a cost-effectiveness analysis on an individual unit-by-unit basis, and has included all appropriate costs in the cost-effectiveness analysis, as attached in Appendix C of this staff report.

9. **COMMENT:** The proposed Phase II NOx emissions limit for flat glass melting furnaces has not been achieved in practice. The District should consider a 1.6 lb NOx/ton of glass pulled limit for the Phase II compliance instead. (Guardian)

RESPONSE: Through the District's engineering analysis, staff found that the compliance with the proposed Phase II NOx emission limits of 1.5 lbs/ton on a rolling 30-day average is technologically feasible through the use of available control technologies, and that the proposed requirements are cost-effective.

10. **COMMENT:** The commenter supports the proposed PM10 emission limit of 0.2 lb/ton of glass pulled based on a 24-hour block average starting in 2024, but would like to inform the District that any lower PM10 limit could cause serious issues for the facility and is not recommended. (Guardian)

RESPONSE: The District thanks you for your comment and appreciates this recommendation.