San Joaquin Valley Unified Air Pollution Control District

Draft Amendments Rule 4354

(District Project # CEQA 20080357)

Initial Study and Negative Declaration

August 2008

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT GOVERNING BOARD
2008

CHAIR: LEROY ORNELLAS
Supervisor, San Joaquin County

VICE CHAIR: CHRIS VIERRA
Councilmember, City of Ceres

MEMBERS:

TONY BARBA
Supervisor, Kings County

JUDITH G. CASE
Supervisor, Fresno County

RONN DOMINICI
Supervisor, Madera County

MICHAEL G. NELSON
Supervisor, Merced County

WILLIAM O'BRIEN
Supervisor, Stanislaus County

HENRY T. PEREA
Council Member, City of Fresno

JOHN G. TELLES, M.D.
Appointed by the Governor

RAYMOND A. WATSON
Supervisor, Kern County

J. STEVEN WORTHLEY
Supervisor, Tulare County

AIR POLLUTION CONTROL OFFICER

SEYED SADREDIN

A. PROJECT BACKGROUND INFORMATION

1. Project Title:

Draft Amendments to Rule 4354 (Glass Melting Furnaces)

2. Lead Agency Name and Address:

San Joaquin Valley Unified Air Pollution Control District
1990 E. Gettysburg Avenue
Fresno CA 93726-0244

3. Contact Person:

CEQA: Jessica Willis
(559) 230-5800

Planning: Sandra Lowe-Leseth
(559) 230-5800

4. Project Location:

The rule applies to new and modified stationary sources located within the boundaries of the San Joaquin Valley Unified Air Pollution Control District (see Exhibit 1, Map of District boundaries).

5. Project Sponsor's Name and Address:

San Joaquin Valley Unified Air Pollution Control District
1990 E. Gettysburg Avenue
Fresno CA 93726-0244

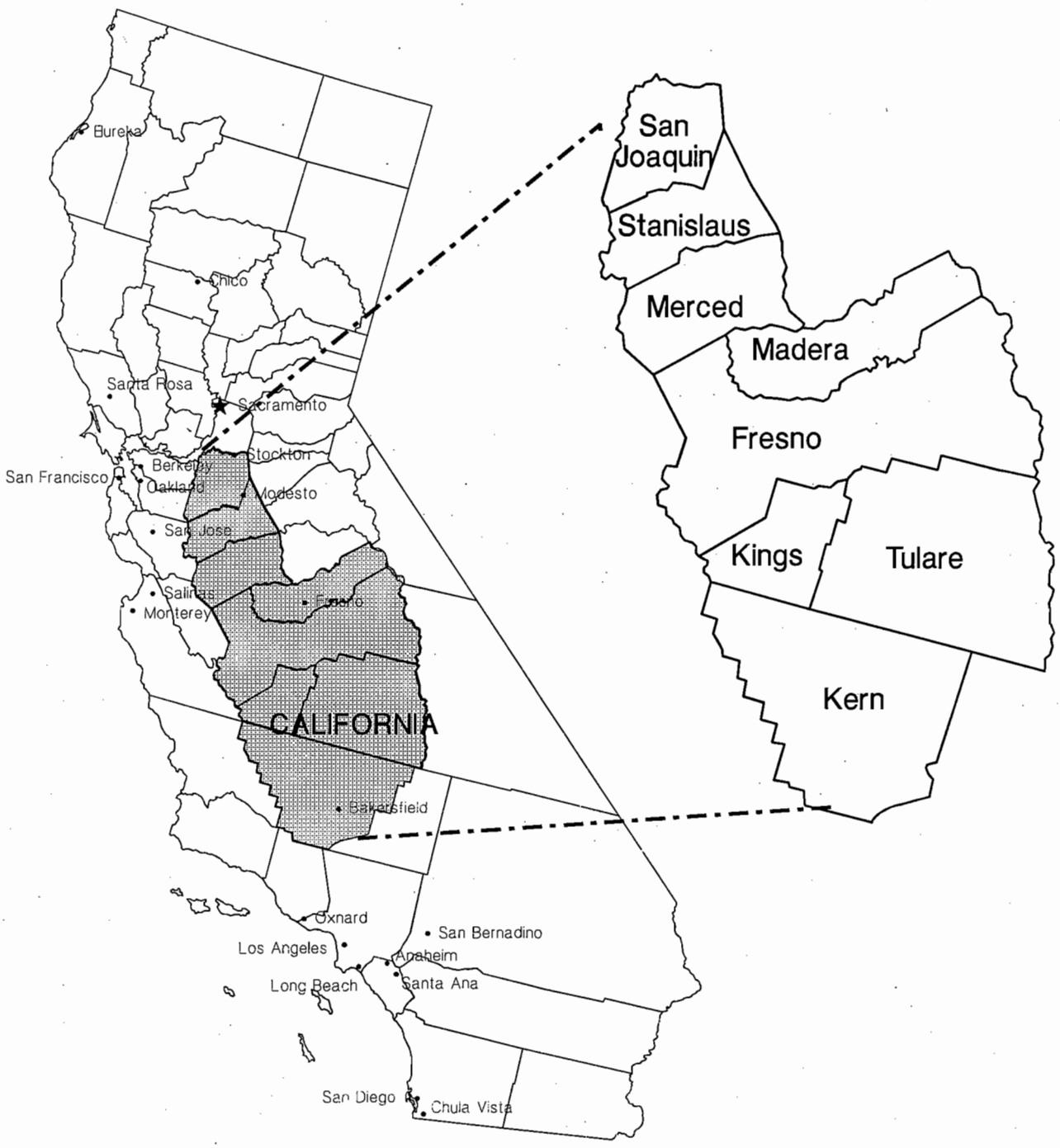
6. Assessor's Parcel Number:

Not applicable to this project.

7. General Plan Designation/Zoning:

Not applicable to this project.

Exhibit 1
San Joaquin Valley Unified Air Pollution Control District Boundaries



8. Project Description:

This rulemaking project will amend Rule 4354 (Glass Melting Furnaces) to reduce oxides of nitrogen (NOx), oxides of sulfur (SOx) and particulate matter (PM) emissions from glass melting furnaces. This project is part of the District's 2007 8-hour ozone and 2008 PM2.5 attainment strategies. To satisfy the attainment goals of the ozone and PM plans, this project will seek to obtain as much NOx, SOx, and PM emission reductions from this source category as is expeditiously practicable, technologically feasible, and economically reasonable, as determined by the District's Governing Board. The rulemaking project is also intended to satisfy state and federal Clean Air Act requirements.

District staff will submit the draft amendments to Rule 4354 to the District Governing Board for consideration of adoption during a public hearing scheduled for September 18, 2008.

NOx Control Technology

The draft NOx limits can be met through choice of raw materials, firing technology and add-on pollution control equipment. For NOx control, add-on control could be the use of Selective Catalytic Reduction (SCR) technology or ammonia/urea injection.

SOx Control Technology

The draft SOx limit can be met through choice of raw materials and add-on pollution control equipment. Add-on control could be a wet or dry scrubber.

PM Control Technology

The draft PM limit can be met through material selection, material feed configuration and add-on controls. For add-on PM emission controls, filters or electrostatic precipitators are used.

9. Other Agencies Whose Approvals Are Required and Permits Needed:

This project is a rule development project and does not require permits from any agency. The United States Environmental Protection Agency must approve the rule for inclusion into California's State Implementation Plan.

10. Name of Person Who Prepared Initial Study:

Sandra Lowe-Leseth, Air Quality Engineer
San Joaquin Valley Unified Air Pollution Control District

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated", as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	

C. DETERMINATION

I certify that this project was independently reviewed and analyzed and that this document reflects the independent judgment of the District.

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION has been prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

Signature: _____ Date: 10-16-08

Printed Name: Leroy Ornellas Title: Board Chair

D. ENVIRONMENTAL IMPACT CHECKLIST

I. AESTHETICS Would the proposal:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Affect a scenic vista or scenic highway?				√
b) Have a demonstrable negative aesthetic effect?				√
c) Create light or glare?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements that would affect any changes in the physical environment that would obstruct any scenic vistas or views of interest to the public. The amendments would not create aesthetically offensive sites visible to the public. No significant adverse aesthetic impacts are expected from the adoption and implementation of the amendments.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

II. AGRICULTURE RESOURCES In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				√
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				√
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements affecting agricultural resources, as identified above.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

III. AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?				√
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				√
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				√
d) Expose sensitive receptors to substantial pollutant concentrations?			√	
e) Create objectionable odors affecting a substantial number of people?			√	

Discussion: (a-c) Draft amendments to Rule 4354 is a rule development project. The San Joaquin Valley Air Basin is a non-attainment area for the state and federal ambient ozone and $PM_{2.5}$ standards. NOx is a precursor to both ozone and $PM_{2.5}$. It is expected that the use of NOx emission control devices will have positive effects on the air quality of the Valley. It is anticipated that some increased emissions of ammonia will result from the use of SCR control systems. The amount of ammonia emissions is assumed to be a small fraction of the amount of NOx that is controlled and that the large, positive net air quality benefit outweighs the small increase in fugitive ammonia emissions.

(d) Selective Catalytic Reduction (SCR) technology would likely be used by some operators to comply with the draft amendments. SCR uses ammonia in the presence of a catalyst to convert NOx to harmless nitrogen and water vapor. California Office of Environmental Health and Hazard Assessment (OEHHA) has not classified ammonia as a carcinogen. However, ammonia does have acute and chronic health effects. The District's thresholds for significance for toxic impacts are a cancer risk greater than 10 in a million and/or a hazard index (HI) of 1.0 or greater for chronic non-carcinogenic or acute risks. The District's permitting process is such that a project cannot be permitted if the health risks exceed the District's Thresholds.

(e) District Rule 4102 (Nuisance) applies to any source operation that emits or may emit air contaminants or other materials. In the event that a project creates a public nuisance, it could be in violation and be subject to District enforcement action. Also, since the olfactory organs can detect ammonia at very low concentrations, there is little chance that any long-term exposure at unhealthy concentrations could mistakenly occur.

Global Warming Impacts

Combustion processes generate greenhouse gas (GHG) emissions in addition to criteria pollutants. The effects of GHG gas emissions on global climatic change occur over long periods of time and are typically considered to be cumulative impacts. Implementation of amendments to Rule 4354 has the potential to increase fuel use, which will increase CO_2 emissions. Emitted CO_2 is the primary GHG pollutant emitted during the combustion process. For the purpose of addressing GHG impacts of implementing the proposed rule changes, the overall increase in CO_2 emissions was calculated. As presented in Table 1 (Attachment 1), implementation of the proposed rule changes could increase CO_2 emissions by 32,528 metric tons per year from all sources affected by the rule. District records show 8 facilities could be affected by the proposed rule revisions, resulting in an average increase in CO_2 emissions of 4,100 metric tons per year per facility.

At this time there are no generally accepted thresholds of significance for determining the impact of GHG

emissions from an individual project on global climatic change. In the absence of a specific significance threshold, District staff evaluates the significance on a case-by case basis. One approach in determining significance is to estimate what percentage of the total inventory of GHG emissions are represented by emissions from a project. If emissions are a relatively small percentage of the total inventory, it is possible that the project will have little or no effect on global climatic change. As presented in Table 1, the increase in CO_2 emissions resulting from implementation of the proposed rule amendments would be 0.0060% of the State's GHG emissions inventory.

In its *CEQA & Climatic Change*, document (January, 2008) CAPCOA identifies several potential GHG significance thresholds. A potential threshold identified by CAPCOA is 25,000 metric tons per year per project, which is also equivalent to CARB's proposed mandatory reporting threshold under AB 32 for a single facility. In addition, the District in assessing the significance GHG emissions from individual projects has previously applied a threshold of 38,000 metric tons per year, on a case-by-case basis.

In conclusion, the maximum cumulative GHG emissions increase that could result from the implementation of these rules would be an extremely small percentage of the State's GHG emissions inventory and total project emissions would be significantly below the 38,000 metric tons per year threshold previously applied by the District for individual facilities on a case-by-case basis. Furthermore, on a per facility basis, increased CO_2 emissions from an individual facility would be significantly below CARB's proposed 25,000 metric tons per year mandatory reporting threshold for a single facility. Any increase in emissions of GHG from a single facility, as a result of complying with the rules, would be substantially below the thresholds discussed above. District staff concludes that adverse impact from implementing Rule 4354 is less than significant.

Mitigation: None

Reference: Draft Amendments to Rule 4354 and supporting staff report; *CEQA & Climatic Change*, CAPCOA, 2008

IV. BIOLOGICAL RESOURCES Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				√
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				√
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				√
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				√
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				√

IV. BIOLOGICAL RESOURCES (continued) Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. Adoption and implementation of the amendments are not expected to adversely affect existing plant or animal species or communities and unique or endangered plant or animal species. The amendments are not expected to conflict with plans, ordinances, or policies to protect biological resources, as described above.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

V. CULTURAL RESOURCES Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?				√
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?				√
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				√
d) Disturb any human remains, including those interred outside of formal cemeteries?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements affecting cultural resources and will not result in a significant adverse impact.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

VI. GEOLOGY/SOILS Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				√
ii) Strong seismic ground shaking?				√

VI. GEOLOGY/SOILS (continued) Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
iii) Seismic-related ground failure, including liquefaction?				√
iv) Landslides?				√
b) Result in substantial soil erosion or the loss of topsoil?				√
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				√
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				√
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements affecting geology/soils, as identified above.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

VII. HAZARDS & HAZARDOUS MATERIALS Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			√	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			√	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				√
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				√
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			√	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				√

VII. HAZARDS & HAZARDOUS MATERIALS (continued) Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				√
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				√

Discussion: (a, c, d, f, g) Draft amendments to Rule 4354 is a rule development project. The project does not impose requirements affecting hazards and hazardous materials, as identified in (a, c, d, and f) above

(e) Selective Catalytic Reduction (SCR) technology is one option that would be used to comply with the draft amendments. SCR uses ammonia in the presence of a catalyst to convert NOx to harmless nitrogen and water vapor. California Office of Environmental Health and Hazard Assessment has not classified ammonia as a carcinogen. However, ammonia does have acute and chronic health effects. Acute exposure to ammonia at a concentration of 3,200 micrograms per cubic meter has been found to cause irritation of the eyes and respiratory tract. Higher concentrations cause conjunctivitis, laryngitis, and pulmonary edema. Long-term exposure to ammonia at concentrations of 200 micrograms per cubic meter or greater has been found to affect the respiratory tract. Since the olfactory organs can detect ammonia at very low concentrations, there is little chance that any long-term exposure at unhealthy concentrations could mistakenly occur. Also, since state and local safety regulations govern the handling, storage, and transport of ammonia, the potential for accidental release and acute exposure is minimized. Adherence to these regulations is anticipated to minimize significant impacts associated with the use of ammonia.

Some SCR systems can also use non-hazardous urea or aqueous ammonia injection to achieve the draft emission limits without anhydrous ammonia. The use of anhydrous ammonia involves greater risk than aqueous ammonia because it is stored and transported under pressure. In the event of a leak or rupture of a tank, anhydrous ammonia is released and vaporizes. Aqueous ammonia is a liquid at ambient temperatures and gas is only produced when a liquid pool from a spill evaporates. Under current Office of Emergency Services regulations implementing the California Accidental Release Prevention program, aqueous ammonia is regulated under California Health and Safety Code Section 2770.1. The use of aqueous ammonia would further minimize any potential hazard impacts associated with anhydrous ammonia use. A limit on ammonia slip is normally included in permits to operate of stationary sources, which should minimize potential air quality impacts associated with ammonia slip from sources operating SCR. Furthermore, properly operating and well-maintained equipment could reduce the level of ammonia emissions. Therefore, the levels of ammonia emissions from potential ammonia slip are not expected to reach hazardous levels.

Certain catalysts used in SCRs may contain hazardous materials that must be properly disposed of at the end or their useful life. Existing waste disposal regulations are considered to be adequate to prevent any significant impact from occurring.

In conclusion, the transportation, storage, and use of anhydrous ammonia, aqueous ammonia, or urea in conjunction with the operation of SCR as well as disposal of spent catalyst are not expected to have any adverse impacts on the environment as well as living things.

Mitigation: None

Reference: Draft Amendments to Rule 4354 and supporting staff report.

VIII. HYDROLOGY/WATER QUALITY Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements?				√
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				√
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?				√
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				√
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				√
f) Otherwise substantially degrade water quality?				√
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				√
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				√
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				√
j) Inundation by seiche, tsunami, or mudflow				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements affecting hydrology/water quality, as identified above.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

IX. LAND USE/PLANNING Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?				√
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				√
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				√

Discussion: Draft amendments to Rule 4354 is a rule development project. The District does not have land use authority and is generally prohibited from encouraging or prohibiting specific land uses. As such, the amendments have no characteristics that would directly change land use, zoning or land use plans or directly affect the land use classification, or location criteria of any public or private residential, commercial, industrial, or public land use facility. Any facilities affected by the proposed amendments would still be anticipated to comply with, and not interfere with, any applicable land use plans, zoning ordinances, habitat conservation or natural community conservation plans. Thus, no significant adverse land use impact is anticipated.

Mitigation: None

Reference: Draft Amendments to Rule 4354 and supporting staff report.

X. MINERAL RESOURCES Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				√
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				√

Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments would not result in the loss of availability of a known mineral resource of value to the region and the residents of the state or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, significant adverse impacts to mineral resources are not anticipated.

Mitigation: None

Reference: Draft Amendments to Rule 4354 and supporting staff report.

XI. NOISE Would the project result in:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				√

XI. NOISE (continued) Would the project result in:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				√
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				√
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				√
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				√
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements affecting noise, as identified above.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

XII. POPULATION/HOUSING Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				√
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				√
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements affecting population/housing, as identified above.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

XIII. PUBLIC SERVICES Would the project	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?				√
Police protection?				√
Schools?				√
Parks?				√
Other public facilities?				√
b) Cumulatively exceed official regional or local population projections?				√
c) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?				√
d) Displace existing housing, especially affordable housing?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments are not anticipated to generate significant adverse impacts to public services (i.e., fire departments, police departments, and local governments). The amendments would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times or other performance objectives.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

XIV. RECREATION	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				√
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements affecting recreation, as identified above				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

XV. TRANSPORTATION/TRAFFIC Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				√
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				√
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				√
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				√
e) Result in inadequate emergency access?				√
f) Result in inadequate parking capacity?				√
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				√
Discussion: Draft amendments to Rule 4354 is a rule development project. The amendments do not impose requirements affecting transportation and traffic, as identified above.				
Mitigation: None				
Reference: Draft Amendments to Rule 4354 and supporting staff report.				

XVI. UTILITIES/SERVICE SYSTEMS Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				√
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				√
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				√
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				√
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				√

XVI. UTILITIES/SERVICE SYSTEMS (continued) Would the project:	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				√
g) Comply with federal, state, and local statutes and regulations related to solid waste?				√

Discussion: Draft amendments to Rule 4354 is a rule development project. Installation of SCR and other control systems will require electrical power for fans, electronics and control motors. This parasitic loss of power is not expected to result in any impact on the power generated by these units.

Mitigation: None

Reference: Draft Amendments to Rule 4354 and supporting staff report.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE	**Potentially Significant Impact**	**Potentially Significant Impact Unless Mitigated**	**Less Than Significant Impact**	**No Impact**
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				√
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively Considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				√
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?			√	

Discussion: (a-b) Draft amendments to Rule 4354 is a rule development project. No significant adverse impacts on the categories outlined above are anticipated as a result of this project.

(c) Compliance with the draft amendment to Rule 4354 has the potential to cause adverse effects on humans. However, as discussed in Section III. Air Quality (d, e) and Section VII. Hazards & Hazardous Materials (e), the impacts to human health risks are less than significant..

E. INITIAL STUDY DISTRIBUTION LIST

Fresno County
2221 Kern Street
Fresno, CA 93721

County of Kern
1115 Truxton Ave.
Bakersfield, CA 93301

County of Kings
1400 W. Lacy Blvd.
Hanford, CA 93230

County of Madera
209 W. Yosemite Ave.
Madera, CA 93637

County of Merced
2222 "M" Street, Room 14
Merced, CA 9534

County of San Joaquin
6 S. El Dorado St., 2nd Floor
Stockton, CA 95202

County of Stanislaus
1021 "I" Street, Suite 101
Modesto, CA 95354

County of Tulare
221 S. Mooney Blvd., Rm. 105
Visalia, CA 93291

California Dept. Fish & Game
Region 2 (North Central)
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

California Dept. Fish & Game
Region 4 (Central)
1234 E. Shaw Ave.
Fresno, CA 93710

California Dept. Fish & Game
1416 9th Street, 12th Floor
Sacramento, CA 95814

California Dept. Transportation, District 6
2015 E. Shields Ave., Suite 100
Fresno, CA 93726

California Dept. Transportation, District 10
1976 E. Charter Way
Stockton, CA 95205

California Dept. Water Resources
1416 9th Street, P.O. Box 942836
Sacramento, CA 94236

Regional Water Quality Control Board
Central Valley – Region 5F
1685 "E" Street
Fresno, CA 93706

Regional Water Quality Control Board
Central Valley – Region 5S
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Attachment 1

Table 1 – GREENHOUSE GAS (CO_2e) EMISSIONS FROM UNITS SUBJECT TO RULE 4354

Facility	Total rated heat input of furnaces, nominal, MMBtu/hr	Max fuel burned, MMBtu/yr*	Current fuel burned+ MMBtu/yr	Current fuel burned, 10^6 scf/yr	Fuel penalty, %**	Additional CO_2 emissions, lb/yr	Added CO_2 emissions, metric tpy
Gallo Glass	315	2,759,400	1,931,580	1,894	5	11,362,235	5,165
Owens Brockway	156	1,366,560	956,592	1,340	10	16,077,176	7,308
Saint-Gobain[A]	75	657,000	459,900	644	10	7,729,412	3,513
Certainteed	96	840,960	588,672	824	5	4,946,824	2,249
UPF	4.25	37,230	26,061	37	5	219,000	100
Guardian[B]	182	1,594,320	1,116,024	1,563	0	0	0
Pilkington	200	1,752,000	1,226,400	1,718	10	20,611,765	9,369
PPG	206	1,804,560	1,263,192	1,769	5	10,615,059	4,825
						Total additional CO2, metric tpy	32,528

* based on nominal heat input and 24 hr/day; 365 day/yr

** Assume that SCR alone will reduce efficiency by 5% - Scrubber + ESP will reduce efficiencey by 5% - SCR/scrubber/ESP will reduce total efficiency by 10%

\+ Current fuel burned = 70% of max

[A] Only one furnace (of two at facility) would be affected by rule - Furnace 2 has already been converted to oxyfuel

[B] Guardian already has SCR/scrubber/EP

APPENDIX A

Response to Comments

District Response to Comments Received
Draft Amendments to Rule 4354 (Glass Melting Furnaces)

The following party provided written comments on the proposed Initial Study/Mitigated Negative Declaration:

- Steven B. Smith, Vice President, Environmental, Health and Safety, Saint-Gobain Containers

A copy of the comment letter is incorporated into this document as attachment 2. A summary of salient comments and associated responses follow.

Steven B. Smith, Saint-Gobain Containers

1. **Comment 1:** Selective Catalytic Reduction (SCR) is not a viable control for a single furnace exhaust due to frequent flow, temperature and inlet concentration variability and the inability to control ammonia injection rates with such fluctuations. The likelihood of excess ammonia slip is underestimated in the Proposed Negative Declaration (PND). SCR technology, when employed in exhaust streams with sulfur emissions, has the potential to convert gaseous SO2 into particulate sulfuric acid mist and presents a potentially significant impact. SCR also results in increased GHG emissions due to fuel efficiency issues.

   Response 1: The proposed rule is technology-neutral, meaning that the rule does not specify which technology operators must use to achieve the required emission limits. District staff assumed that all operators would choose the retrofit control technology with the lowest capital cost, without regard to other potential impacts. Based on information available, that lowest-cost option is SCR.

   CEQA requires Lead Agencies to disclose information regarding potential adverse environmental impacts. As noted, the utilization of SCR technology would result in adverse environmental impacts not present with the use of other control technologies. These impacts are identified and discussed in the referenced supporting staff report and support the District's findings that the project will have a less-than-significant impact on air quality.

2. **Comment 2:** The Draft Rule will result in a 10% annual increase in CO2 emissions. The PND should not characterize the increase in existing GHG emissions as a less than significant impact. GHG can be totally eliminated by revising the Draft Rule to a limit based on oxygen enriched air staging (OEAS) technology. SCR also creates a potentially hazardous waste stream, which other control options do not present.

Response 2: Policy and guidance to evaluate and mitigate the effects of GHG for CEQA is being developed by permitting agencies. Until a more definite guidance becomes established, the District applies a threshold of 38,000 metric tons of CO2 equivalent per year per project. For the purpose of disclosing potential environmental impacts, the District based its analysis on SCR technology, which as the commenter has pointed out, would result in GHG emissions not present with other retrofit technology. As such, the District's analysis represents the worst-case scenario for potential impacts. The analysis of this worst-case scenario demonstrates that the project's impacts on global climatic change would be less than the District's applied threshold of significance. The project's potential impacts, including potential hazardous waste streams, are identified and discussed in the referenced staff report.

3. **Comment 3:** Potentially significant environmental impacts can be avoided or mitigated by revising the Draft Rule to focus on cost-effective retrofit technology such as OEAS. OEAS can achieve a significant reduction in NOx emissions with none of the adverse environmental impact of SCR.

   Response 3: Please refer to Response 1.

4. **Comment 4:** We urge the District to re-evaluate the control options for reducing or eliminating adverse environmental impacts from SCR technology and incorporate emission limits based on OEAS technology.

   Response 4: Please refer to Responses 1 and 2.

Attachment 2

SAINT-GOBAIN
CONTAINERS

August 13, 2008

San Joaquin Valley APCD
Central Region Office
1990 E. Gettysburg Ave.
Fresno, CA 93726

Comments on Initial Study and Proposed Negative Declaration - Draft Amendments to Rule 4354

Dear Sir or Madam:

Saint-Gobain Containers, Inc. owns and operates two glass container production furnaces in Madera, California. We have reviewed the Initial Study and Proposed Negative Declaration (PND) and offer the following comments. We have been following the Proposed Rulemaking related to Rule 4354 and have previously offered comments on the Draft Rule. These comments incorporate our prior comments. We appreciate the opportunity to provide comments on this most recent document.

Potentially Significant Impact of the NOx Control Option of Selective Catalytic Reduction

As we explained in a public meeting on the Draft Rule, SCR is not a viable control for a single furnace exhaust due to frequent flow, temperature and inlet concentration variability and the inability to control ammonia injection rates with such fluctuations. As a result, the likelihood of excess ammonia slip is a very real possibility, which we feel is underestimated in the Proposed Negative Declaration, wherein, at page 6 of 18, the analysis suggests that the negative impacts are less than significant. Additionally, there is evidence that SCR technology, when employed in exhaust streams with sulfur emissions such as glass furnace exhausts, has the potential to convert gaseous SO2 into particulate sulfuric acid mist. This factor was not considered in the PND. We believe that when properly factored into the environmental impacts of the SCR option chosen as the basis for the Draft Rule, the likely emissions of ammonia and sulfuric acid mist present potentially significant impacts. Additionally, as noted in the PND, SCR also results in increased GHG emissions due to fuel efficiency issues.

Comment1

The PND concludes that the Draft Rule will result in an annual increase in CO2 emissions of 32,528 tons per year. The PND trivializes this 10% increase in existing GHG emissions from glass furnaces by suggesting that this increase is insignificant because it represents only 0.0060% of the statewide GHG inventory. The impact of a 10% increase in GHG emissions from our industry sector should not be identified as a "less than significant impact" especially where the 3,513 ton increase in GHG estimated in Table 1 for our Madera facility can be totally eliminated by revising the Draft Rule to a limit based on OEAS technology rather than the more polluting SCR technology.

Comment 2

Saint-Gobain Containers
1509 South Macedonia Ave. • PO Box 4000 • Muncie IN 47307-4200 • Tel: (765) 741-7000 • Fax: (765) 741-7012 • www.sgcontainers.com

Finally, SCR creates a potentially hazardous waste stream, as identified in page 10 of 18 of the PND, which other control options (discussed below) do not present.

Comment 2

Mitigation of Potentially Significant Impacts

We believe that these potentially significant environmental impacts can be avoided or mitigated by revising the Draft Rule to focus on cost-effective retrofit technology for existing glass furnaces, such as oxygen enriched air staging (OEAS). OEAS can achieve a significant reduction in NOx emissions from a regenerative furnace, such as our Furnace No. 1 at Madera, with none of the adverse environmental impacts of SCR. We thus urge the District to re-evaluate the NOx limits and control options for container glass furnaces in the Draft Rule and to utilize a revised Initial Study to support the decision that OEAS is a more cost effective and technologically achievable emission reduction method for retrofit to existing regenerative container glass furnaces.

Comment 3

Conclusion

We urge the District to review the Draft Rule holistically and to evaluate options for reducing or eliminating adverse environmental impacts associated with SCR control technology. We believe that review will support a decision to revise the Draft Rule to incorporate emission limits based on the cleaner technology of OEAS, achieving significant reductions in NOx without the adverse impacts of increased emissions of ammonia, sulfuric acid mist and GHG. Thank you for the opportunity to present these concerns to the District.

Comment 4

Sincerely,

Steven B. Smith
Vice President, Environmental, Health and Safety

Cc: Stephen A. Segebarth, Esq.