# **Supplemental Application Form**

# **Glass Melting Furnaces – Compliance with Rule 4354 (12/16/2021 amendments)**

***NOTE:*** *This form must be accompanied by a completed Authority to Construct (ATC) Application Form.*

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| FACILITY NAME: | | | | | | | | FACILITY ID #: | | | | |
| FACILITY LOCATION: | | | | | | | | | | | | |
| **EQUIPMENT DETAILS** | PERMIT TO OPERATE #(s): | | | | | | | | | | | |
| TYPE OF GLASS PRODUCED | | | | Container Glass  Fiberglass  Flat Glass  Other: | | | | | | | |
| GLASS FURNACE TOTAL HEAT INPUT RATING:         MMBtu/hr | | | | | | | | | | | |
| PERMITTED PRODUCTION CAPACITY:         ton/day         ton/year | | | | | | | | | | | |
| **FUEL & FIRING** | PRIMARY FUEL:  Natural Gas  Other: | | | | | | | | | | | |
| SUPPLEMENTAL HEATING TECHNIQUE:  LPG/Propane  Electric Heating  Other: | | | | | | | | | | | |
| FIRING TECHNOLOGY:  100% Air-fired  Oxy-assisted  Oxy-fuel  Other: | | | | | | | | | | | |
| **PROPOSED EMISSIONS LIMITS** | Please specify Rule 4354 NOx compliance schedule for this application: | | | | | | | | Phase I  Phase II | | | |
| Proposed emission limits to comply with Rule 4354: | | | | | | | | | | | |
| Pollutant | Steady-State | | | | | Start-Up  (ppmv)(lb/hr) | | | | Shutdown  (ppmv) (lb/hr) | |
| lb/ton of glass produced  (Block 24-hour Avg)(Rolling 30-day Avg) | | | | ppmv |
| NOx |  | |  | | N/A |  | | |  |  |  |
| N/A |
| SOx |  | |  | | N/A |  | | |  |  |  |
| N/A |
| PM10 |  | |  | | N/A |  | | |  |  |  |
| N/A |
| CO | N/A | | | |  |  | | |  |  |  |
| VOC | N/A | | | |  |  | | |  |  |  |
| Duration (please provide justification) | | | | | | hr/day       hr/yr | | | | hr/day       hr/yr | |
| % O2, dry basis, if corrected to other than 8%:       % | | | | | | | | | | | |
| NH3 emissions in exhaust (if reagent used):       ppmv | | | | | | | | | | | |
| **EMISSIONS CONTROL SYSTEMS** | Please provide information on emissions control systems used to comply with Rule 4354 limits | | | | | | | | | | | |
| Pollutant | CE (%)\* | Emission Control Systems | | | | | | | | | |
| NOx |  | Selective Catalytic Reduction (SCR)  Catalytic Filter System  Other:  Reagent used:  Ammonia (NH3)  Urea  Other: | | | | | | | | | |
| SOx |  | Dry scrubber  Wet scrubber  Semi-dry  Other:  Sorbent used:  Trona  Calcium hydroxide  Calcium Carbonate  Other: | | | | | | | | | |
| PM10 |  | Electrostatic Precipitator  Ceramic dust collector  Other: | | | | | | | | | |
| CO |  | None  Other: | | | | | | | | | |
| VOC |  | None  Other: | | | | | | | | | |
| **\*Source of Control Efficiency (CE)** (please provide copies of all supporting data):  Manufacturer’s Specifications  Emission Source Test  CEMS Data  Other: | | | | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Note: Please Complete the Following Section for Major Source Pollutants Only** | | | | | | | | | |
| **BASELINE ACTUAL EMISSIONS** | Please provide date for **Baseline Actual Emissions (BAE)** and indicate basis of the data:  Previous 5 years data **OR**  average during any consecutive 24-month period within the previous 10-years | | | | | | | | |
| Year | | | |  |  |  |  |  |
| Actual Emissions (lb/year) | CEMS Data\* | | NOx |  |  |  |  |  |
| SOx |  |  |  |  |  |
| CO |  |  |  |  |  |
| Source Test Data\* | | PM10 |  |  |  |  |  |
| VOC |  |  |  |  |  |
| Actual Production  (ton-glass produced/year) | | | |  |  |  |  |  |
| Fuel Usage (MMscf/yr) | | Primary | |  |  |  |  |  |
| Supplemental | |  |  |  |  |  |
| \*Please attach all supporting records of historical usage to determine BAE:  Emissions Source Test  CEMS Data  Other: | | | | | | | | |
| **PROJECTED ACTUAL EMISSIONS** | **Projected Actual Emissions (PAE)** data attached (lb/year)? Yes  No  Note: For units with no increase in design capacity or potential to emit (PE), PAE is equal to annual emission rate at which unit is projected to emit in any1 year, selected by the operator, within 5 years after the unit resumes normal operation. If detailed PAE are not provided, District will use PE2 to calculate project emissions increase as = ∑(PE2 – BAE) | | | | | | | | |
| **Unused Baseline Capacity (UBC)** data attached (lb/year)? Yes  No  Note: When using historical data & company’s expected business activity to determine PAE, portion of emissions after the project that the existing unit could have accommodated (UBC) before the project (during the same 24-month baseline period used to determine BAE) and that are unrelated to the particular project (including emissions increases due to product demand growth) are to be excluded. Thus Project Emissions Increase could be calculated as = PAE – BAE – UBC | | | | | | | | |

## HEALTH RISK ASSESSMENT DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **Will this application result in change in stack parameters** (Exhaust flowrate, release height, etc.)**?** Yes  No  **Will this application result in increase in NH3 emissions?** Yes  No If you answered YES to any questions above, please fill out the section below otherwise leave blank. | | | |
| Operating Hours | Maximum Operating Schedule:       hours per day, and       hours per year | | |
| **Receptor Data** | Distance to nearest Residence | feet | Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc. |
| Direction to nearest Residence |  | Direction from the stack to the receptor, i.e. Northeast or South. |
| Distance to nearest Business | feet | Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc. |
| Direction to nearest Business |  | Direction from the stack to the receptor, i.e. North or Southwest. |
| Stack Parameters | Release Height | feet above grade | |
| Stack Diameter | inches at point of release | |
| Rain Cap | Flapper-type  Fixed-type  None  Other: | |
| Direction of Flow | Vertically Upward  Horizontal  Other:      ° from vert. or      ° from horiz. | |
| Exhaust Data | Flowrate:       acfm | | Temperature:       °F |
| **Facility Location** | Urban (area of dense population)  Rural (area of sparse population) | | |
| Include a facility plot plan showing the location of the stack. Please indicate North on the plot plan. For public notice projects, indicate on plot plan the facility boundaries or fence line and distance(s) from stack to boundaries. | | |