



San Joaquin Valley Air Pollution Control District Supplemental Application Form



Full-Time Spark-Ignited IC Engines for Non-Agricultural Operations

Please complete one form for each engine.

This form must be accompanied by a completed Authority to Construct/Permit to Operate Application form

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| PERMIT TO BE ISSUED TO: |
| LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: |

EQUIPMENT DESCRIPTION

| | | | | |
|---|--|-------------------------|---|--------|
| Engine Details | Engine Manufacturer: | | Number of Cylinders: | |
| | Engine Model: | | Engine Year Manufactured: | |
| | Engine Serial Number: | | | |
| | Engine Certification Family Number: | | | |
| | Engine's Type of Combustion: <input type="checkbox"/> Rich-Burn <input type="checkbox"/> Lean-Burn <input type="checkbox"/> 4-Stroke <input type="checkbox"/> 2-Stroke | | | |
| | Engine Manufacturer's Maximum Rated Power Output (per the data plate): _____ bhp | | | |
| | Engine's Rated Power Output for the Process the Engine Serves: _____ bhp | | | |
| Process Data | Process the Engine Serves: | | | |
| | Electrical Power Generation Only | Generator Manufacturer: | | Model: |
| | | Power Output: _____ kW | | |
| Will this equipment be used in an electric utility rate reduction program? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | |
| Fuel Data | Fuel Type: <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane <input type="checkbox"/> Gasoline <input type="checkbox"/> Other: _____ (i.e. digester gas or landfill gas) | | | |
| | For "Other" fuels only: Higher Heating Value: _____ Btu/scf, or _____ Btu/gal, For "Other" fuels only: An Ultimate Fuel Analysis or the combustion F-Factor _____ dscf/MMBtu | | | |
| | Sulfur Content: _____ gr/100 scf (gaseous fuel) or _____ % by weight (liquid fuel) | | | |
| | Fuel consumption at maximum rated output: _____ scf/hr, or _____ gal/hr | | <input type="checkbox"/> Fuel Meter <input type="checkbox"/> None | |
| Rules 4701/4702 Type of Use and Emissions Monitoring Provisions | <p>Full Time - limited from greater than 200 hrs/yr to full time operation (8,760 hrs/year)</p> <input type="checkbox"/> Category 1 - Engines equipped with an external control device <input type="checkbox"/> Category 2 - Engines with no external control device, but have a horsepower rating \geq 1,000 bhp and are permitted to operate > 2,000 hours per year Category 1/Category 2 engines must have either a Continuous Emissions Monitoring System (CEMS) or one of the following alternate emissions monitoring plans <input type="checkbox"/> CEMS, please specify all pollutants monitored: <input type="checkbox"/> NO _x <input type="checkbox"/> CO <input type="checkbox"/> O ₂ <input type="checkbox"/> Other: _____ <input type="checkbox"/> Monitoring of NO _x , CO, and O ₂ concentrations <input type="checkbox"/> Monitoring of catalyst inlet and outlet temp., ammonia injection rate, and NO _x , CO, and O ₂ concentrations <input type="checkbox"/> Other Alternate Monitoring Plan (approved on a case by case basis), attach details <input type="checkbox"/> Category 3 - Engines not covered by Categories 1 or 2 above Category 3 engines must monitor operational characteristics recommended by the engine manufacturer or emission control system supplier <input type="checkbox"/> Monitoring of exhaust O ₂ concentrations (used for lean-burn engines only) <input type="checkbox"/> Monitoring other operational characteristic (approved on a case by case basis), attach details | | | |
| | Note: See District policy (SSP-1810) for additional details of pre-approved alternate emissions monitoring plans, at: http://www.valleyair.org/policies_per/Policies/SSP%201810.pdf | | | |
| Hour Meter | Note: All engines are required to have either a nonresettable elapsed time meter or an alternate device, method, or technique, approved by the APCO, for determining elapsed operating time. <input type="checkbox"/> Equipped with a Nonresettable Elapsed Operating Time Meter <input type="checkbox"/> Alternate Method (please provide details): _____ | | | |

EMISSIONS CONTROL

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| Emissions Control Equipment (Check all that apply) | <input type="checkbox"/> Positive Crankcase Ventilation System | <input type="checkbox"/> 90% Efficient crankcase emission control device |
| | <input type="checkbox"/> Turbocharger | <input type="checkbox"/> Intercooler/Aftercooler |
| | <input type="checkbox"/> Automatic Air/Fuel Ratio or O ₂ Controller - Manufacturer: _____ | |
| | <input type="checkbox"/> Selective Catalytic Reduction - Manufacturer: _____ Model: _____ <input type="checkbox"/> Ammonia, <input type="checkbox"/> Urea, <input type="checkbox"/> Other: _____, Reagent slip _____ ppmv @ _____ % O ₂ | |
| | <input type="checkbox"/> Non-Selective Catalytic Reduction - Manufacturer: _____ Model: _____ | |
| | <input type="checkbox"/> Particulate Filter - Manufacturer: _____ Model: _____ | |
| | Control Efficiencies: NO _x _____ %, SO _x _____ %, PM ₁₀ _____ %, CO _____ %, VOC _____ % | |
| <input type="checkbox"/> Other (please specify): _____ | | |

EMISSIONS DATA

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|---|--|--------------|-----------|--------------|-------------|--------------|-------------|
| Note: See District BACT and District Rules 4701 and 4702 requirements for applicability to proposed engine at http://www.valleyair.org/busind/pto/bact/chapter3.pdf , http://www.valleyair.org/rules/curmrules/r4701.pdf , and http://www.valleyair.org/rules/curmrules/r4702.pdf . | | | | | | | |
| Primary Fuel Emissions Data | Operational Mode | Steady State | | Start-up | | Shutdown | |
| | | (ppmvd) | (g/hp-hr) | (ppmvd) | (lb/hr) | (ppmvd) | (lb/hr) |
| | Nitrogen Oxides | | | | | | |
| | Particulate Matter (PM ₁₀) | | | | | | |
| | Carbon Monoxide | | | | | | |
| | Volatile Organic Compounds | | | | | | |
| Duration (please provide justification) | | | | _____ hr/day | _____ hr/yr | _____ hr/day | _____ hr/yr |
| % O ₂ , dry basis, if corrected to other than 15%: _____ % | | | | | | | |
| Source of Data | <input type="checkbox"/> Manufacturer's Specifications <input type="checkbox"/> Emissions Source Test <input type="checkbox"/> CARB/EPA Certification <input type="checkbox"/> Other _____ Note: please provide copies of all sources of emissions data. | | | | | | |

INSPECTION AND MONITORING

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| Inspection and Monitoring Provisions | Note: All engines (except for certified engines that have <u>not</u> been retrofitted with an exhaust control device) must submit for APCO approval, an Inspection and Monitoring (I&M) plan that specifies all actions to be taken for the plan. Please provide details in additional documentation and refer to Section 6.5 of Rule 4702 for details (see link in the previous section). |
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HEALTH RISK ASSESSMENT DATA

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|--------------------------|--|--|--|
| 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 | <input type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input type="checkbox"/> None <input type="checkbox"/> Other: _____ | |
| | Direction of Flow | <input type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input type="checkbox"/> Other: _____ ° from vert. or _____ ° from horiz. | |
| Exhaust Data | Flowrate: _____ acfm | Temperature: _____ °F | |
| Transportable | Is this engine transportable? <input type="checkbox"/> Yes <input type="checkbox"/> No Note: This is used for health risk assessment purposes only. | | |
| Facility Location | <input type="checkbox"/> Urban (area of dense population) <input type="checkbox"/> Rural (area of sparse population) | | |