

**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 Application for Authority to Construct and Permit to Operate form

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

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

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/curnrules/r4701.pdf , and http://www.valleyair.org/rules/curnrules/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

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

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)		