



Form 400-E-12 Gas Turbine

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): _____ Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): _____

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): _____

Fixed Location Various Locations

Section B - Equipment Description

Turbine	Manufacturer: _____	Model: _____	Serial No.: _____	
	Size (based on Higher Heating Value - HHV):			
	Manufacturer Maximum Input Rating: _____ MMBTU/hr _____ kWh			
	Manufacturer Maximum Output Rating: _____ MMBTU/hr _____ kWh			
Function (Check all that apply)	Electrical Generation	Driving Pump/Compressor	Emergency Peaking Unit	
	Steam Generation	Exhaust Gas Recovery	Other (specify): _____	
Cycle Type	Simply Cycle	Regenerative Cycle		
	Combined Cycle	Other (specify): _____		
Combustion Type	Tubular	Can-Annular	Annular	
Fuel (Turbine)	Natural Gas	LPG	Digester Gas*	
	Landfill Gas*	Propane	Refinery Gas*	Other*: _____
	* (If Digester Gas, Landfill Gas, Refinery Gas, and/or Other are checked, attach fuel analysis indicating higher heating value and sulfur content).			
Heat Recovery Steam Generator (HRSG)	Steam Turbine Capacity: _____ MW			
	Low Pressure Steam Output Capacity: _____ lb/hr @ _____ °F			
	High Pressure Steam Output Capacity: _____ lb/hr @ _____ °F			
	Superheated Steam Output Capacity: _____ lb/hr @ _____ °F			
Duct Burner	Manufacturer: _____		Model: _____	
	Number of burners: _____		Rating of each burner (HHV): _____	
	Type: Low NOx (please attach manufacturer's specifications)			
	Other: _____			
	Show all heat transfer surface locations with the HRSG and temperature profile			
Fuel (Duct Burner)	Natural Gas	LPG	Digester Gas*	
	Landfill Gas*	Propane	Refinery Gas*	Other*: _____
	* (If Digester Gas, Landfill Gas, Refinery Gas, and/or Other are checked, attach fuel analysis indicating higher heating value and sulfur content).			

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Section B - Equipment Description (Cont.)

Air Pollution Control	Selective Catalytic Reduction (SCR)*	Selective Non-Catalytic Reduction (SNCR)*
	Oxidation Catalyst*	Other (specify)*: _____
	Steam/Water Injection: Injection Rate: _____ lbs. water/lbs. fuel, or _____ mole water/mole fuel * Separate application is required.	
Capital Cost: _____ Installation Cost: _____ Annual Operating Cost: _____		

Oxidation Catalyst Data (If Applicable)	Manufacturer: _____	Model: _____
	Catalyst Dimensions: Length: _____ ft. _____ in. Width: _____ ft. _____ in. Height: _____ ft. _____ in.	
	Catalyst Cell Density: _____ cells/sq.in. Pressure Drop Across Catalyst: _____	
	Manufacturer's Guarantee: CO Control Efficiency: _____ % Catalyst Life: _____ yrs	
	VOC Control Efficiency: _____ % Operating Temp. Range: _____ °F	
	Space Velocity (gas flow rate/catalyst volume): _____ Area Velocity (gas flow/wetted catalyst surface area): _____	
VOC Concentration into Catalyst: _____ PPMVD@ 15%O ₂ CO Concentration inot Catalyst: _____ PPMVD@ 15%O ₂		

Section C - Operation Information

Pollutants	Maximum Emissions Before Control *		Maximum Emissions After Control	
	PPM@15% O ₂ , dry	lb/hour	PPM@15% O ₂ , dry	lb/hour
ROG				
NOx				
CO				
PM ₁₀				
SOx				
NH ₃				
* Based on temperature, fuel consumption, and MW output.				
Reference (attach data):				
Manufacturer Emission Data	EPA Emission Factors	AQMD Emission Factors	Source Test	

Stack or Vent Data	Stack Height: _____ ft. _____ in.	Stack Diameter: _____ ft. _____ in.
	Exhaust Temperature: _____ °F	Exhaust Pressure: _____ inches water column
	Exhaust Flow Rate: _____ CFM	Oxygen Level: _____ %

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Section C - Operation Information (cont.)

Startup Data	No. of Startups per day: _____ No. of Startups per year: _____ Duration of each startup: _____ hrs.																																							
Shutdown Data	No. of Shutdowns per day: _____ No. of Shutdowns per year: _____ Duration of each Shutdown: _____ hrs.																																							
Startup and Shutdown Emissions Data	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">Pollutants</th> <th colspan="2">Startup Emissions</th> <th colspan="2">Shutdown Emissions</th> </tr> <tr> <th>PPM@15% O₂, dry</th> <th>lb/hour</th> <th>PPM@15% O₂, dry</th> <th>lb/hour</th> </tr> <tr> <td>ROG</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>NOx</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CO</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PM₁₀</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>SOx</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>NH₃</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Pollutants	Startup Emissions		Shutdown Emissions		PPM@15% O ₂ , dry	lb/hour	PPM@15% O ₂ , dry	lb/hour	ROG					NOx					CO					PM ₁₀					SOx					NH ₃				
	Pollutants		Startup Emissions		Shutdown Emissions																																			
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Monitoring and Reporting	Continuous Emission Monitoring System (CEMS): CEMS Make: _____ CEMS Model: _____																																							
	Will the CEMS be used to measure both on-line and startup/shutdown emissions? Yes No																																							
	The following parameters will be continuously monitored:																																							
	NOx CO O ₂ Fuel Flow Rate Ammonia Injection Rate Other (specify): _____																																							
	Ammonia Stack Concentration: Ammonia CEMS Make: _____ Ammonia CEMS Model: _____																																							
Operating Schedule	Normal: _____ hours/day _____ days/week _____ weeks/yr Maximum: _____ hours/day _____ days/week _____ weeks/yr																																							

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info	Signature: _____ Date: _____	Name: _____
	Title: _____ Company Name: _____	Phone #: _____ Fax #: _____ Email: _____
Contact Info	Name: _____ Title: _____ Company Name: _____	Phone #: _____ Fax #: _____ Email: _____

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information.