

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Best Available Control Technology (BACT) Guideline**

Source Category

Source:	Gas Turbine	Revision:	2
		Document #:	89.1.6
Class:	Combined Cycle (≥ 40 Megawatts)	Date:	07/18/03

Determination

POLLUTANT	BACT 1. Technologically Feasible/ Cost Effective 2. Achieved in Practice	TYPICAL TECHNOLOGY
POC	1. n/d 2. 2.0 ppm, Dry @ 15% O ₂ ^{a,b,e,f,i}	1. n/d 2. Oxidation Catalyst, or Efficient Dry Low-NOx Combustors ^{a,b,e,f,i}
NO _x	1. 2.0 ppm, Dry @ 15% O ₂ ^{d,e,i,j,k,l} 2. 2.5 ppm, Dry @ 15% O ₂ ^{a,b,e,g,i} (2.0 ppm achieved in practice for 50 MW LM6000 combined cycle unit. ⁱ)	1. SCR+ Low NOx Combustors, or Water or Steam Injection, or a SCONOX System ^{d,e,i,j,k,l} 2. SCR+ Dry Low-NOx Combustors ^{a,b,e,g,i}
SO ₂	1. n/d 2. Natural Gas Fuel (sulfur content not to exceed 1.0 grain/100 scf) ^e	1. n/d 2. Exclusive use of PUC-regulated grade natural gas ^e
CO	1. n/d 2. 4.0 ppm, Dry @ 15% O ₂ ^{g,i}	1. n/d 2. Oxidation Catalyst ^{g,i}
PM ₁₀	1. n/d 2. Natural Gas Fuel (sulfur content not to exceed 1.0 grain/100 scf) ^{a,b,c,e,h,j,k,l}	1. n/d 2. Exclusive use of PUC-regulated grade natural gas ^{a,b,c,e,h,j,k,l}
NPOC	1. n/a 2. n/a	1. n/a 2. n/a

References

- a. Application #18595, Los Medanos Energy Center (formerly Pittsburg District Energy Facility)
- b. Application #19414, Delta Energy Center.
- c. Application #27215, Metcalf Energy Center
- d. EPA LAER Determination letter dated 3/24/2000.
- e. CARB "Guidance for Power Plant Siting and Best Available Control Technology", Stationary Source Division, June 1999
- f. Application #8658, Crockett Cogeneration
- g. Sacramento Power Authority (Campbell Soup) in Sacramento County, California. The unit is a 103 MW nominal output Siemens V84 combustion turbine with DLN

combustion, SCR, and oxidation catalyst.

h. Application #1000, Contra Costa Power Plant Unit 8 Project

i. Application #2488 & 2695 Valero Cogeneration Project (Achieved in practice for LM6000 2.0 ppm NOx, 4.0 ppm CO, 2.0 ppm POC)

j. Application #2589, East Altamont Energy Center

k. Application #3506, Tesla Power Project

l. Application #6481, Pico Power Project