



Air Pollution Control Board
Brian P. Bilbray District 1
Dianne Jacob District 2
Pamela Slater District 3
Leon L. Williams District 4
John MacDonald District 5

Air Pollution Control Officer
R. J. Sommerville

NOTICE OF WORKSHOP

TO DISCUSS THE PROPOSED ADOPTION OF NEW RULE 69.3 - STATIONARY GAS TURBINES

The San Diego County Air Pollution Control District will hold a public meeting to consider the adoption of Rule 69.3 - Stationary Gas Turbines. Comments concerning this proposal may be submitted in writing before, or made at the workshop which is scheduled as follows:

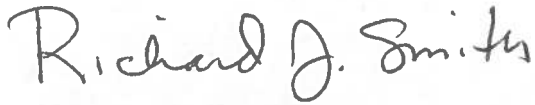
DATE: July 25, 1994 - Monday
TIME: 9:00 a.m. - 12:00 p.m.
PLACE: Mental Health Services
San Diego Room
3851 Rosecrans Street
San Diego CA

San Diego County does not meet either the state or federal ambient air quality standard for ozone that have been established to protect public health. Oxides of Nitrogen (NO_x) and volatile organic compounds react in the atmosphere to form ozone. The Federal Clean Air Act (FCAA) requires the District to adopt rules limiting NO_x emissions at major NO_x stationary sources by application of Reasonably Available Control Technology (RACT). Rule 69.3 is a new rule designed to reduce NO_x emissions from new and existing stationary gas turbines. It reflects RACT for these sources as required by the FCAA. The rule applies to any existing stationary gas turbine in San Diego County that has a power rating of 1 megawatt (MW) or greater and to any new stationary gas turbine that has a power rating of 0.3 MW or more. It exempts portable gas turbines, stationary gas turbines operated exclusively for research, development or testing and stationary gas turbines used exclusively for emergency situations. Specifically, the proposed rule will:

- Require owners or operators of new or existing turbines subject to the rule to limit NO_x emissions to 42 ppmv when operated on a gaseous fuel, or 65 ppmv when operated on a liquid fuel, both calculated at 15% oxygen, dry.
- Require the installation of meters and continuous monitors to measure and record various operational parameters of the turbine and any NO_x emissions reduction system.
- Require recordkeeping of turbine startups and shutdowns, fuel usage and operation on alternate fuels.
- Require annual source testing unless otherwise specified by the Air Pollution Control Officer.
- Specify test methods for determining compliance with the rule.

- Specify that any existing turbine be in compliance with all provisions of the rule by May 31, 1995. New turbines will be required to comply with all applicable provisions upon initial installation and startup.

If you would like a copy of proposed Rule 69.3, please call Juanita Ogata at (619) 694-8851. If you have any questions concerning the proposal, please call Kim Cresencia at (619) 694-3312, or myself at (619) 694-3303.



RICHARD J. SMITH
Deputy Director

RJSm:KC:jo
06/22/94

SAN DIEGO AIR POLLUTION CONTROL DISTRICT

NEW PROPOSED RULE 69.3

New proposed Rule 69.3 is to read as follows:

RULE 69.3 STATIONARY GAS TURBINE ENGINES

(a) APPLICABILITY

This rule shall apply to any existing stationary gas turbine engine with a power rating of 1.0 megawatt (MW) or greater, or to any new stationary gas turbine engine with a power rating of 0.3 MW or greater. Any unit subject to this rule shall not be subject to Rule 68.

(b) EXEMPTIONS

(1) The provisions of this rule shall not apply to the following:

(i) Any gas turbine engine when operated exclusively for the research, development or testing of gas turbine engines or their components.

(ii) Any portable gas turbine engine located at a stationary source 180 days or less in a consecutive 12-month period. It is the responsibility of any person claiming this exemption to maintain records indicating the dates that such turbine was located at a stationary source. These records shall be maintained by the owner of such turbine and made available to the District upon request.

(2) The provisions of Section (d) shall not apply to the following:

(i) Any emergency unit provided that operation for maintenance purposes to ensure operability in the event of an emergency situation does not exceed 80 hours per calendar year. It is the responsibility of any person claiming this exemption to maintain records in accordance with Subsections (e)(2) and (e)(6) of this rule.

(ii) Any unit during startup, shutdown or a fuel change for a period not to exceed 30 continuous minutes. It is the responsibility of any person claiming this exemption to maintain records in accordance with Subsections (e)(3) and (e)(6) of this rule. Nothing in this rule shall be construed to limit the actual time needed to conduct a startup, shutdown or fuel change.

(c) **DEFINITIONS**

For the purposes of this rule, the following definitions shall apply:

(1) **"Emergency Situation"** means any one of the following:

- (i) an unforeseen electrical power failure of the serving utility or of onsite electrical transmission equipment; or
- (ii) an unforeseen flood, fire or life-threatening situation.

Emergency situation shall not include operation of any unit for training purposes or other foreseeable event, or operation of any peaking unit for the purpose of supplying power for distribution to an electrical grid.

(2) **"Emergency Unit"** means a stationary gas turbine engine used only in the event of an emergency situation. A peaking unit shall not be considered an emergency unit.

(3) **"Existing" or "Existing Unit"** means any stationary gas turbine engine which was installed and operating in San Diego County on or before (*date of adoption*).

(4) **"Fuel Change"** means the transitory operating period when a switch occurs between liquid or gaseous fuels, or any combination thereof.

(5) **"Gaseous Fuel"** means natural gas, digester gas, landfill gas, methane, ethane, propane, butane, or any gas stored as liquids at high pressure such as liquefied petroleum gas.

(6) **"Liquid Fuel"** means distillate oils, kerosene and jet fuel.

(7) **"New" or "New Unit"** means a stationary gas turbine engine installed in San Diego County after (*date of adoption*).

(8) **"Peaking Unit"** means a stationary gas turbine engine that is operated intermittently for generation of electric power during periods of high energy demand.

(9) **"Portable Gas Turbine Engine"** means the same as "Portable Emissions Unit" defined in Rule 20.1 as it would apply to a gas turbine engine.

(10) **"Power Augmentation"** means an increase in the gas turbine engine shaft output, or a decrease in turbine fuel consumption, by the addition of energy recovered from exhaust heat.

(11) **"Power Rating"** means the maximum, continuous power output of a unit, in megawatts (MW) or equivalent, as certified by the manufacturer unless limited by a condition in a District Authority to Construct or a Permit to Operate. Power augmentation shall not be included in power rating.

(12) **"Shutdown"** means to cease operation of a unit and includes the amount of time needed to safely do so.

(13) **"Stationary Gas Turbine Engine"** means any gas turbine engine system, with or without power augmentation, which is permanently attached to a foundation, or is not a portable gas turbine. Two or more gas turbines powering a common shaft shall be treated as one gas turbine.

(14) **"Stationary Source"** means the same as is defined in Rule 20.1.

(15) **"Startup"** means to begin operation of a unit and includes the amount of time needed for a unit and ancillary equipment to achieve stable operation.

(16) **"Unit"** means any stationary gas turbine engine.

(d) **STANDARDS**

(1) The emissions concentration of oxides of nitrogen (NO_x) from any unit subject to this rule, calculated as nitrogen dioxide at 15% oxygen on a dry basis, shall not exceed the following:

- (i) 42 parts per million (ppm) by volume when operated on a gaseous fuel.
- (ii) 65 parts per million (ppm) by volume when operated on a liquid fuel.

(e) **MONITORING AND RECORDKEEPING REQUIREMENTS**

(1) An owner or operator of a unit which is subject to the requirements of Section (d) shall install continuous monitors to allow for instantaneous monitoring of the operational characteristics of the unit and of any NO_x emissions reduction system, as applicable. Operational characteristics may include, but are not limited to, the following:

- (i) exhaust gas flow rate;
- (ii) exhaust gas temperature;
- (iii) ammonia injection rate;

- (iv) water injection rate;
- (v) stack-gas oxygen content.

(2) An owner or operator of an emergency unit shall maintain an operating log and record the hours of operation for maintenance purposes and during an emergency situation. At a minimum, these records shall include the dates and actual times and duration of all startups and shutdowns, total cumulative annual hours of operation for maintenance purposes, and a description of any operation that occurred due to emergency situations.

(3) An owner or operator of any unit subject to this rule shall maintain an operating log and record actual times and duration of all startups, shutdowns and fuel changes, and the type of fuel used.

(4) Continuous monitors shall be installed, calibrated and maintained in accordance with applicable federal regulations and a protocol approved in writing by the Air Pollution Control Officer.

(5) For any existing unit, continuous emissions monitors which have been installed to measure NOx emissions pursuant to any federal regulation shall be certified, calibrated and maintained in accordance with applicable federal regulations and a protocol approved in writing by the Air Pollution Control Officer.

(6) The owner or operator of any unit subject to this rule shall maintain all records required by Section (e) for a minimum of three calendar years. These records shall be maintained on the premises and made available to the District upon request.

(f) TEST METHODS

(1) To determine compliance with Section (d), measurement of oxides of nitrogen and stack-gas oxygen content shall be conducted in accordance with San Diego Air Control District Method 20, as approved by the U.S. Environmental Protection Agency.

(2) The averaging period to calculate NOx emissions concentration shall be any thirty consecutive minute period.

(3) Measurements of emissions concentrations shall not include calibration or span check measurements of the emissions testing equipment.

(g) SOURCE TEST REQUIREMENTS

(1) Source testing shall be performed at no less than 80% of the power rating.

(2) A unit subject to the requirements of Section (d) shall be tested for compliance at least once every 12 months, unless otherwise specified in writing by the Air Pollution Control Officer. Testing shall be conducted in accordance with Section (f) and a source test protocol approved in writing by the Air Pollution Control Officer. Test reports shall include the operational characteristics, as listed in Subsection (e)(1), of the unit and of all add-on NO_x control systems.

(h) COMPLIANCE SCHEDULE

(1) An owner or operator of an existing unit shall be in compliance with all applicable provisions of this rule no later than May 31, 1995.

(2) Any person installing a new unit subject to the provisions of this rule shall comply with the applicable provisions of Section (d) upon initial installation and commencement of operation.