FINAL REGULATION ORDER

AMENDMENTS TO THE DISTRIBUTED GENERATION CERTIFICATION REGULATION

Note: The amendments are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions.

Amend sections 94201, 94202, 94203, 94204, 94207, 94208, 94209, 94210, 94211, and 94212, and Adoption of section 94201.1, article 3, subchapter 8, chapter 1, division 3 of title 17, California Code of Regulations, to read as follows:

Article 3. **Distributed Generation Certification Program**

§ 94201. **Applicability.**

Any DG Unit manufactured after January 1, 2003, for sale, lease, use, or operation in the State of California; or any new DG Unit sold or leased, or offered for sale or lease, for use or operation in the State of California after January 1, 2003, shall be certified by the Air Resources Board unless the DG Unit:

(a) does not emit an air contaminant when operated,

(b) is ~~registered under the Portable Engine and Equipment Registration Program (title 13, California Code of Regulations commencing at section 2450)~~portable,

(c) is used only when electrical or natural gas service fails or for emergency pumping of water for fire protection or flood relief, ~~or~~

(d) is not exempt from an air pollution control district or air quality management district's permitting requirements~~.~~,

(e) is part of a research operation that has been approved in writing by the Executive Officer prior to commencement of operations, or

(f) is operated by the manufacturer at the manufacturing facility prior to sale or lease for the purpose of quality-assurance testing.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

§ 94201.1 **Operation of DG Unit That Was Certified When Purchased or Leased.**

Any DG Unit that was purchased or leased while the DG Unit was certified can continue to be operated by the owner or lessee after the certification has expired so long as the DG Unit meets the standard to which it was certified.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

§ 94202. **Definitions.**

(a) For the purposes of these regulations, the following definitions apply:

~~(a)~~(1) "Air ~~C~~contaminant"~~.~~ ~~Shall have~~ has the same meaning as set forth in section 39013 of the Health and Safety Code.

~~(b)~~(2) **"Air ~~P~~pollution ~~C~~control ~~E~~equipment"~~.~~** means ~~E~~equipment that eliminates, reduces, or controls the issuance of air emissions.

~~(c)~~(3) **"Applicant"~~.~~** means a ~~A~~ manufacturer or manufacturer's designated agent applying for certification of a DG Unit.

~~(d)~~(4) **"ARB"~~.~~** means The California Air Resources Board.

(5) **"Btu"** means British thermal unit.

(6) **"CO"** means carbon monoxide.

~~(e)~~ (7) **"Combined ~~H~~heat and ~~P~~power (CHP) "~~.~~** means a ~~A DG Unit~~system that ~~produces both electric power~~ recovers thermal energy and ~~process~~converts it into useful heat from electrical power generation equipment.

(8) **"Digester gas"** means gases produced from the decomposition of sewage.

~~(f)~~ (9) **"Distributed ~~G~~generation (DG)" ~~Unit.~~** means ~~E~~electrical generation technologies that produce electricity near the place of use.

(10) **"DG Unit"** means a piece of distributed generation equipment.

~~(g)~~ (11)**"District"~~.~~** ~~Shall have~~ has the same meaning as set forth in part 3, commencing with section 40000 of the California Health and Safety Code.

~~(h)~~ (12)**"Electrical ~~G~~generation ~~T~~technology"**~~.~~ means ~~R~~reciprocating engines, external combustion engines, combustion turbines, photovoltaics, wind turbines, fuel cells, or any combination thereof.

(13) **"Energy efficiency"** means the amount of useful heat and electricity produced by a DG Unit divided by the higher heating value of the fuel used to produce the useful heat and electricity, expressed as a percentage.

~~(i)~~ (14)**"Executive Officer"**~~.~~ means ~~The~~ the Executive Officer of the California Air Resources Board or his or her designee.

~~(j)~~ (15)**"Executive Order"**~~.~~ means ~~An~~ an order issued by the Executive Officer of the Air Resources Board certifying compliance of a DG Unit with the applicable requirements of this article.

(16) **"Fossil fuels"** means fuels such as coal, oil, and natural gas; so-called because they are the remains of ancient plant and animal life.

(17) **"Higher heating value"** means the amount of heat released by the combustion of material at 25 ℃ once the products o f combustion have returned to a temperature of 25 ℃.

(18) **"Landfill gas"** means gases produced from the decomposition and volatilization of materials in landfills

(19) **"LPG"** means liquid petroleum gas.

(20) **"MW-hr"** means megawatt-hour.

(21) **"Natural gas"** means California Public Utility Commission (CPUC) quality natural gas.

(22) **"NOx"** means oxides of nitrogen, expressed as NO_2.

(23) **"Oil-field waste gas"** means gases produced from the drilling of oil wells and pumping of oil from wells that are not eligible for delivery to the utility pipeline system.

(24) **"PM"** means particulate matter.

(25) **"Portable"** has the same meaning as set forth in title 13 section 2452 of the California Code of Regulations.

(26) **"Research operation"** means investigation, experimentation, or research to advance the knowledge of distributed generation technologies.

(27) **"Useful heat"** means the heat that can be captured and used for other processes such as heating water or running an absorption chiller.

(28) **"VOC"** means volatile organic compounds, expressed as hexane.

~~(k)~~ (29) **"Zero Emission Technology~~.~~"** means ~~A~~any technology that does not emit an air contaminant as defined in section 94202~~(a)~~(1).

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

94203. **Requirements.**

(a) On or after January 1, 2003, any DG Unit subject to this regulation must be certified pursuant to section 94204 to one of the following sets of emission standards in Table 1.

(1) DG Unit not integrated with combined heat and power,
(2) DG Unit integrated with combined heat and power technology.

Table 1.
January 1, 2003 Emission Standards (lb/MW-hr)

Pollutant	***DG Unit not Integrated with Combined Heat and Power (a)(1)***	***DG Unit Integrated With Combined Heat and Power (a)(2)***
Oxides of Nitrogen (NO_x)	**0.5**	**0.7**
Carbon Monoxide (CO)	**6.0**	**6.0**
Volatile Organic Compounds (VOCs)	**1.0**	**1.0**
Particulate Matter (PM)	**An emission limit corresponding to natural gas with fuel sulfur content of no more than 1 grain/100 scf**	**An emission limit corresponding to natural gas with fuel sulfur content of no more than 1 grain/100 scf**

(~~A~~3) DG Units that use combined heat and power may be certified to the emission standard in section (a)(2) above if the DG Units are sold with combined heat and power technology integrated into a standardized package by the Applicant and the DG Units achieve a minimum energy efficiency of 60 percent ~~(useful energy out/fuel in)~~. The efficiency determination shall be based on 100 percent load.

(~~B~~4) DG Units that are sold with a zero emission technology integrated into a standardized package by the Applicant may have the electrical power output of the zero emission technology added to the electrical power output of the DG ~~unit~~ Unit to meet the emission standards in (a)(1) and (a)(2) above.

(b) On or after January 1, 2007, any DG Unit subject to this regulation fueled by a fossil fuel must be certified pursuant to section 94204 to the following set of emission standards in Table 2.

Table 2.
~~January 1,~~ 2007 Fossil Fuel Emission Standards ~~(lb/MW-hr)~~

Pollutant	Emission Standard (lb/MW-hr)
~~Oxides of Nitrogen (NO_x)~~	0.07
~~Carbon Monoxide (CO)~~	0.10
~~Volatile Organic Compounds (VOCs)~~	0.02
~~Particulate Matter (PM)~~	~~An emission limit corresponding to natural gas with fuel sulfur content of no more than 1grain/100 scf~~

~~(1)~~ DG Units that ~~use~~produce combined heat and power may take a credit to meet the emission standard above. Credit shall be at the rate of one ~~megawatt-hour (~~MW-hr~~)~~ for each 3.4 million ~~British Thermal Units (BTU's)~~Btu's of heat recovered. To take the credit, the following must apply:

(~~A~~1) DG Units are sold with combined heat and power technology integrated into a standardized package by the Applicant; and

(~~B~~2) DG Units achieve a minimum energy efficiency of 60 percent. ~~(useful energy out/fuel in) in the conversion of the energy in the fossil fuel to electricity and process heat. The efficiency determination shall be based on 100 percent load.~~

(c) Any DG Unit subject to this regulation and fueled by digester gas, landfill gas, or oil-field waste gas must be certified pursuant to section 94204 to the emission standards in Table 3.

Table 3.
Waste Gas Emission Standards

Pollutant	Emission Standard (lb/MW-hr)	
	On or after January 1, 2008	On or after January 1, 2013
NO_x	0.5	0.07
CO	6.0	0.10
VOC	1.0	0.02

DG Units that produce combined heat and power may take a credit to meet the January 1, 2013, emission standard above. Credit shall be at the rate of one MW-hr for each 3.4 million Btu's of heat recovered. To take the credit, the following must apply:

(1) DG Units are sold with combined heat and power technology integrated into a standardized package by the Applicant; and

(2) DG Units achieve a minimum energy efficiency of 60 percent.

~~(c)~~ (d) DG Units must meet applicable emission standards for 15,000 hours of operation when operated and maintained according to the manufacturer's instructions.

~~(d)~~ (e) By July 2005, the ARB staff must complete an electrical generation technology review to evaluate if the requirements in (b) and (~~c~~d) above and section 94207 should be modified and report its findings to the Board.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

94204. **Certification Procedure.**

(a) Each application for certification and the fee, as specified in section 94210, shall be submitted in a format approved by the Executive Officer and include, at a minimum, the following information:

(1) name of the Applicant, a contact person, mailing address (street and electronic), and telephone number;

(2) a description of the DG Unit and model number;

(3) maximum output rating (kilowatt);

(4) fuel type and analysis for which certification is being sought;

(5) type or description of any emission control equipment used;

(6) listing of components of the DG Unit most critical to ensuring continued compliance with the emission limits (such as fuel injectors, rotors, seals and bearings for a microturbine and fuel cell stacks and catalysts for fuel cells); and,

~~(6)~~ (7) emission~~s~~ test data, supporting calculations, quality control/assurance information, and all other information needed to demonstrate compliance with the requirements in sections 94203 (a) through (~~c~~d).

(b) Within 30 calendar days of receipt of an application, the Executive Officer shall inform the Applicant in writing if the application is complete or deficient. If deemed deficient, the Executive Officer shall identify the specific information required to make the application complete.

(c) Within 60 calendar days of the application being deemed complete, the Executive Officer shall issue or deny certification.

(d) Upon finding that a DG Unit meets the requirements of this article, the Executive Officer shall issue an Executive Order of Certification for the DG Unit. The Executive Officer shall provide a copy of the Executive Order of Certification to the Applicant.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

94207. **Testing.**

(a) Sampling methodology used must conform to ARB testing procedures. Alternate or modified test methods ~~must~~may be ~~submitted for approval~~used if approved in writing by the Executive Officer prior to use for certification.

~~(1)~~ Testing shall be conducted in accordance with the following methods, which are incorporated by reference herein:

NO_x, CO, ~~VOC~~ and Oxygen:	ARB Test Method 100 (as adopted on July 28, 1997)
VOC:	South Coast AQMD Method 25.3 (as published in March 2000)
Gas Velocity and Flow Rate:	ARB Test Methods 1, 2, 3, and 4 (as adopted on July 1, 1999)

(b) ~~California Public Utility Commission (CPUC) quality~~Only natural gas, LPG, digester gas, landfill gas, or oil-field waste gas, as defined in section 94202, meeting the requirements of section 94207(d)(7) shall be used for certification testing. Other fuels may be used upon the written approval ~~by~~of the Executive Officer.

(c) The DG Unit shall be configured as it will be marketed, including any ~~Any~~ additional control equipment or other devices that affect emissions ~~shall be applied to the DG Unit and operated as marketed for the testing period~~.

(d) Testing parameters.

(1) A minimum of three valid test runs must be conducted. ~~Each test is~~Tests are to be run consecutively. Justification for invalid test runs or time gaps between runs must be included in the test report.

(2) Testing commences after the DG Unit has reached stable operation.

(3) Each run must be conducted ~~for three power production loads: 50 percent of generator gross output, 75 percent of generator gross output, and~~ at 100 percent of generator ~~gross~~ net output.

(A) A load bank may be used to establish the load.

(B) The DG Unit must be operated for a sufficient period of time to demonstrate stability in the emission readings at constant load and to ensure the collection of representative and quantifiable samples.

(4) Generator output (MW-hr), based on ~~gross~~net output, shall be measured during each valid test run. A calibrated electric meter shall be used for the measurements. The meter shall ~~be calibrated according to~~ meet the American National Standards Institute's Code for Electricity Metering (ANSI C12.1-as of July 9, 2001).

(5) Recovered heat shall be measured using a water loop device, measuring the water flow rate, inlet temperature, and outlet temperature.

~~(5)~~ (6) The emission rate shall be expressed in lb/MW-hr. ~~and shall be calculated according to the following formula and weighting factors:.~~

~~(A) The results from the three valid test runs at 50 percent load shall be arithmetically averaged and multiplied by 0.2;~~

~~(B) The results from the three valid test runs at 75 percent load shall be arithmetically averaged and multiplied by 0.5; and~~

~~(C) The results from the three valid test runs at 100 percent load shall be arithmetically averaged and multiplied by 0.3.~~

~~The results for (A), (B) and (C), above, shall be added together to calculate the certification emission rate.~~

~~(6) Prior to commercial operation, each DG Unit shall be tested for NOx emissions at 100 percent load using a NOx analyzer that has been calibrated according to EPA CTM-022 (dated May, 1995) and approved by the Executive Officer. DG Units meeting the requirements of section 94203 (b) on or before January 1, 2003 will be exempt from this requirement.~~

~~(7) Alternate testing parameters may be used upon approval by the Executive Officer.~~

(7) Certification Fuels

(A) Natural gas.

(B) LPG that meets the standards of HD-5 propane.

(C) Surrogate digester gas that is composed of 60 to 65 percent methane and 35 to 40 percent CO_2, by volume.

(D) Surrogate landfill gas that is composed of 42 to 46 percent methane, 34 to 38 percent CO_2, and 18 to 22 percent N_2, by volume.

(E) Surrogate oil-field waste gas that is composed of 63 to 71 percent methane, 6 to 8 percent ethane, 9 to 11 percent propane, 7 to 9 percent CO2, and 7 to 8 percent carbon compounds with four or more carbon atoms per molecule, by volume.

(e) Alternative testing procedures may be used upon written approval of the Executive Officer, if alternative procedures are deemed to be equivalent or more accurate than the prescribed procedures.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

94208. **Recordkeeping.**

(a) The Applicant must retain all information used for the certification application.

(b) Upon request of the Executive Officer, the Applicant will submit information to the ARB on the number and location of certified DG Units ~~that have been sold~~ in California.

(c) ~~Upon request of the Executive Officer, the Applicant will submit to the ARB the serial numbers, emissions durability information, and information gathered from measurements made pursuant to section 94207(d)(6) of certified DG Units sold~~

~~in California~~The Applicant shall maintain a log identifying the components listed pursuant to section 94204(a)(6) that are replaced, the date of replacement, and the hours of operation each replaced component was used.

(d) All records maintained pursuant to this certification program must be retained for a period of five years after the certification has expired.

(e) All records maintained pursuant to this certification program shall be submitted to the ARB upon request of the Executive Officer.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

94209. **Recertification.**

(a) Certification is valid for ~~four~~five years, except ~~where the test results for the initial certification of the DG unit does not meet the requirements~~ as specified in section ~~94203~~ (b)~~. The certification for these DG units shall be valid until January 1, 2007.~~ below.

(b) Digester gas, landfill gas, and oil-field waste gas fueled DG Units certified pursuant to the January 1, 2008, emission standards of section 94203(c) shall be valid for five years, but no later than January 1, 2013.

(c) To recertify, the applicant must submit information required in section 94204(a)(1) through (6), detail any changes to the design or operation of the DG Unit, and provide information to satisfy any new certification requirements since the time of initial certification or recertification.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

94210. **Fees.**

(a) Fees shall be due and payable to the Executive Officer at the time an application is filed.

(b) DG Units ~~subject to these regulations~~ will be assessed a fee of $~~250000~~7,500 for ~~certification and/or re~~certification.

(c) DG Units seeking voluntary certification through section 94205 will be ~~exempt from fees for~~ assessed a fee of $2,500 for certification or recertification.

(d) DG Units meeting the January 1, 2013, requirements of section 94203(~~b~~c) on or before January 1, ~~2003~~2008, will be exempt from certification fees ~~for certifying to the requirements in section 94203(a).~~ . These units will be subject to fees upon recertification.

(e) DG Units applying for recertification will be assessed a fee of either $7,500 if a new source test is required as part of the application package, or $2,500 if a new source test is not required.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

94211. **Inspection.**

The Executive Officer, or an authorized representative of the Executive Officer, may periodically inspect manufacturers of DG Units for sale, lease, use or operation in California ~~or,~~; distributors and retailers selling or leasing DG Units for use or operation in ~~the state of~~ California; and, operators of DG Units in California. The Executive Officer, or an authorized representative, may conduct ~~such~~any tests ~~as are~~ deemed necessary to ensure compliance with these regulations. Failure of a manufacturer, distributor, ~~or~~ retailer, or operator to allow access for inspection purposes shall be grounds for suspension or revocation of certification.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.

94212. **Denial, Suspension or Revocation of Certification.**

(a) The Executive Officer for just cause may deny, suspend or revoke an Executive Order of Certification in any of the following circumstances:

(1) the Applicant has materially misrepresented the meaning, findings, effect or any other material aspect of the certification application, including submitting false or incomplete information in its application for certification regardless of the Applicant's personal knowledge of the falsity or incompleteness of the information;

(2) the test data submitted by the Applicant to show compliance with this regulation have been found to be inaccurate or invalid; or

(3) the certified unit has failed in-use to comply with the findings set forth in the Executive Order. For the purposes of this section, noncompliance with the certification may include, but is not limited to:

(A) a repeated failure to perform to the standards set forth in this article; ~~or~~

(B) modification by the manufacturer of the DG Unit that results in an increase in emissions or changes the efficiency or operating conditions of such unit, without prior notice to and approval by the Executive Officer;

(C) failure to comply with request to test in-use DG Units within 60 days of a written request by the Executive Officer; or

(D) failure to submit records required per section 94208 within 60 days of a written request by the Executive Officer.

(4) The Applicant failed to comply with any other requirement set out herein.

(b) A manufacturer may be denied certification or be subject to a suspension or revocation action pursuant to this section based upon the actions of an agent, employee, licensee, or other authorized representative.

(c) The Executive Officer shall notify a manufacturer by certified mail of any action taken by the Executive Officer to deny, suspend or revoke any certification granted under this article. The notice shall set forth the reasons for and evidence supporting the action(s) taken. A suspension or revocation is effective upon receipt of the notification.

(d) A manufacturer may request that the suspension or revocation be stayed pending a hearing under section 94213. In determining whether to grant the stay, the hearing officer shall consider the reasonable likelihood that the manufacturer will prevail on the merits of the appeal and the harm the manufacturer will likely suffer if the stay is not granted. The Executive Officer shall deny the stay if the adverse effects of the stay on the public health, safety, and welfare outweigh the harm to the manufacturer if the stay is not granted.

(e) Once an Executive Order of Certification has been suspended pursuant to (a) above, the manufacturer must satisfy and correct all noted reasons for the suspension and submit a written report to the Executive Officer advising him or her of all such steps taken by the manufacturer before the Executive Officer will consider reinstating the certification.

(f) After the Executive Officer suspends or revokes an Executive Order of Certification pursuant to this section and prior to commencement of a hearing under section 94213, if the manufacturer demonstrates to the Executive Officer satisfaction that the decision to suspend or revoke the certification was based on erroneous information, the Executive Officer will reinstate the certification.

(g) Nothing in this section shall prohibit the Executive Officer from taking any other action provided for by law for violations of the Health and Safety Code.

NOTE: Authority cited: Sections 39600, 39601 and 41514.9, Health and Safety Code. Reference: Section 41514.9 Health and Safety Code.