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Docket Number:	16-OIR-03
Project Title:	Energy Data Collection
TN #:	214499
Document Title:	Nov 16 Presentation-- Title 20 Section 1304(a)(3) Proposed Changes
Description:	Nov 16 workshop presentation by Christopher Dennis on proposed changes to California Code of Regulations Title 20 that affect how environmental data is reported by electric generators
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Organization:	California Energy Commission
Submitter Role:	Energy Commission
Submission Date:	11/16/2016 9:14:35 AM
Docketed Date:	11/16/2016



Quarterly Fuels and Energy Report CCR Title 20 §1304(a)(3) Proposed Changes

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Commissioner Workshop on Title 20 Data Collection Regulations to
Support New Analytical Needs

California Energy Commission
Art Rosenfeld Hearing Room (Hearing Room A)
November 16, 2016



What are the regulations and what do they do?

The regulations consists of three parts and provide for the collection of the following data.

- Part A: water supply and use; and wastewater production and discharge.
- Part B: biological take and biomass impingement reporting (proposed changes presented in the previous workshop).
- Part C: state and federal violations related to environmental quality or public health.



Who provides the data and how often?

Each owner of an electric power plant located within California or within a control area with end users inside California.

- Part A: 20 MW and greater nameplate capacity.
- Parts B and C: 1 MW and greater nameplate capacity.

The reports are due annually, February 15 of each year.



Who collects the data and what we do with it?

The California Energy Commission collects the data. The data is used for research, analyses, and reporting. A few examples:

- California Energy Commission
 - Integrated Energy Policy Report
 - Evaluation of renewable energy policy impacts on water use by power plants
 - Identification power plants whose water supply was susceptible to impact by the drought and how we can assist them
- University research (such as water-energy nexus)
- News media - current news topics
- Other Agencies (such as federal GAO and USGS, California DWR and Coastal Commission)



Snapshot of California's Power Plant Fleet (75 MW and greater)

- About 78 operating under the Energy Commission's jurisdiction and an additional 22 non-jurisdictional power plants, 100 total.
- Includes capacity of over 29,000 MW of installed natural gas, solar thermal, and geothermal power plants (not including hydroelectric, wind, and once-through-cooled power plants).
- Approximately 123,000 acre-feet of water per year consumed.
- 30 plants use surface water.
- 20 plants use groundwater.
- The largest group, 50 power plants, rely on recycled and degraded groundwater as their primary source of industrial water.



Proposed Data Collection Changes

The revisions are proposed to:

- Clarify the data collection requirements.
- Make the data collected more useful.
- Remove data collection not needed.
- Proposed changes are shown in strikethrough / underline.



Power Plant Reports 1304(a)(3)

§ 1304. Power Plant Reports.

(a) (3) The following environmental information related to power plant operations shall be reported annually for all types of power plants, except power plants that generate electricity solely from wind or hydroelectric processes:



1304(a)(3)(A)

(3)(A) Environmental information related to water supply, water use, and wastewater discharge. All water and wastewater volume data shall be reported in gallons.



1304(a)(3)(A)(1)

1. Water Supplies: Owners of power plants with a gross generating capacity of 20 megawatts and greater shall ~~submit copies of reports or filings required by regulations, permit, or contract conditions that identify any of the following information for the previous calendar year~~ provide the following information for the previous calendar year:



1304(a)(3)(A)(1)(a)

- a. ~~a description of the type of cooling technology being used for each unit within a power plant;~~ a description of the type of primary and backup water supply sources used at the power plant such as groundwater, surface water, recycled water, or potable water provided by another entity;



1304(a)(3)(A)(1)(b)

b. ~~the name of the primary and backup water supplier(s) under contract to provide water to the power plant, if applicable, or the name of the water source as assigned by the U.S. Geological Survey on its 7.5-minute map series. Or, if well water is used, provide the well identification number and location as specified in the California Department of Water Resources, Water Facts, Issue No. 7, "Numbering Water Wells in California", June 2000 that provides water to the power plant, if applicable;~~



1304(a)(3)(A)(1)(c)

c. If well water is used, provide the well identification number and location using the State Well Numbering system as specified in the current version of the California Water Code section 13751.



1304(a)(3)(A)(1)(d)

d. a description of the physical and chemical characteristics of the water supply(s);



1304(a)(3)(A)(1)(e)

e. if available, include any information obtained using the approved test methodology and detection limits specified by the U.S. Environmental Protection Agency in 40 CFR § 141 for analyzing the constituents in a water supply;



1304(a)(3)(A)(1)(f)

f. a description of all consumptive and non-consumptive water use processes at the power plant such as steam cycle cooling, ‘once through cooling’, lubricant and ancillary equipment cooling, inlet air cooling, injection for intercoolers and emissions control, dust control, mirror washing, water injected into and extracted from geothermal resources and oil field facilities, and drinking and sanitation;



1304(a)(3)(A)(1)(g)

g. the ~~daily average and~~ daily maximum use of each water supply for all power plant purposes;



1304(a)(3)(A)(1)(h)

h. the monthly and annual consumptive and non-consumptive use of each water supply for all power plant purposes ~~in acre-feet~~; and



1304(a)(3)(A)(1)(i)

- i. the metering technology used to measure and track water use at the power plant and the frequency at which meter readings are recorded (hourly, daily, weekly, monthly, or annually).



1304(a)(3)(A)(2)

2. Industrial Wastewater Discharges: Owners of power plants with a gross generating capacity of 20 megawatts and greater shall ~~submit copies of reports or filings~~ required by regulations, permit, or contract conditions that provide ~~any of the~~ following information for the previous calendar year:



1304(a)(3)(A)(2)(a)

a. a description of the physical and chemical characteristics of ~~the source water or the industrial wastewater discharge, including any information prepared with the approved test methodology and detection limits specified by the U.S. Environmental Protection Agency in 40 CFR §136.3 for analyzing the constituents in wastewater;~~



1304(a)(3)(A)(2)(b)

b. a description of the power plant industrial wastewater treatment and the wastewater disposal system(s) used at the power plant for discharges related to power plant cooling and operations, and, if applicable, the equipment manufacturer(s) and the year of equipment installation;



1304(a)(3)(A)(2)(c)

c. the name of the entity receiving the industrial wastewater discharge, if applicable, or a description of the industrial wastewater disposal method. If wastewater is discharged to a water body, identify the receiving water as assigned by the appropriate California Regional Water Quality Control Board;



1304(a)(3)(A)(2)(-)

~~d. — the name of the utility or organization receiving the wastewater discharge, if applicable, or the name of the receiving water as assigned by the U.S. Geological Survey on its 7.5-minute map series;~~



1304(a)(3)(A)(2)(d)

d. the measures taken, and the devices installed on the wastewater disposal system's outfall, if any, to control pollution discharges to municipal systems, receiving waters or land;



1304(a)(3)(A)(2)(e)

e. ~~the daily average and daily maximum industrial wastewater discharge volumes in gallons;~~



1304(a)(3)(A)(2)(f)

f. the monthly and annual totals industrial wastewater discharge ~~that are created from power plant operations in acre feet~~; and



1304(a)(3)(A)(2)(g)

g. if available, include any information prepared with the approved test methodology and detection limits specified by the U.S. Environmental Protection Agency in 40 CFR §136.3 for analyzing the constituents in the industrial wastewater discharge.



1304(a)(3)(B)

(B) Biological Resources

(proposed changes presented in the previous workshop)



1304(a)(3)(C)

(C) Copies of any written notification provided by any state or federal regulatory agency to the owner of a power plant with a generating capacity of one megawatt or more that operation of the power plant has created a violation of an applicable statute, regulation, or permit condition related to environmental quality or public health during the previous calendar year, or that there is an ongoing investigation regarding a potential violation at the time that the data identified in this subdivision is required to be filed with the commission.