

PETITION FOR CHANGE IN THE HOURS ALLOWED FOR MAINTENANCE AND TESTING OF THE CRITICAL SERVICES GENERATOR

**PALOMAR ENERGY CENTER
(01-AFC-24C)**

California Energy Commission

**DOCKETED
01-AFC-24C**

TN # 68982

DEC. 28 2012



By:



A  Sempra Energy utility®

**SAN DIEGO GAS & ELECTRIC COMPANY
SAN DIEGO, CALIFORNIA**

With assistance from:



AECOM TECHNICAL SERVICES, INC.

Submitted to:

CALIFORNIA ENERGY COMMISSION

December 28, 2012

PETITION FOR CHANGE IN THE HOURS ALLOWED FOR MAINTENANCE AND TESTING OF THE CRITICAL SERVICES GENERATOR

**PALOMAR ENERGY CENTER
(O1-AFC-24C)**

1.0 INTRODUCTION

San Diego Gas & Electric Company (SDG&E) is filing this petition for a proposed amendment of the time allowed for testing and maintenance of the critical services generator that was installed at the Palomar Energy Center, Docket 01-AFC-24 under a prior amendment done pursuant to California Code of Regulations, Title 20, Section 1769(a)(1).

The engine was installed in March 2011 and SDG&E has been unable to get the engine to operate correctly. The current Commission condition AQ-SC13 only allows for maintenance and testing of this engine to occur for up to one hour per week. SDG&E has had the manufacturer of this engine (Cummins) attempt to repair the unit on multiple occasions; however, this amount of time (one hour) is too restrictive to allow for adequate troubleshooting to occur. SDG&E is requesting that a minor change in this one condition of certification be made to allow for more than one hour per week of maintenance and testing, including troubleshooting.

2.0 DESCRIPTION OF PROPOSED MODIFICATION (Sec. 1769(a)(1)(A))

On April 27, 2010, SDG&E, owner and operator of the Palomar Energy Center (PEC), submitted a petition requesting to amend the original decision for the PEC. The amendment would allow SDG&E to install and operate one 1,945 brake horsepower (bhp) emergency-use internal combustion engine (ICE) at PEC. The engine would be fired exclusively on pipeline quality natural gas fuel and drive a 1,400 kilowatt (kW) electrical generator. This emergency-use device is a critical service engine, meant to keep certain plant systems in a ready mode when electricity is unavailable from the SDG&E power grid.

The San Diego Air Pollution Control District (SDAPCD) released an Authority to Construct (ATC) on May 11, 2010 to allow installation of this unit. The ATC contains the permit conditions specified by the SDAPCD to ensure compliance with applicable federal, state, and local air quality requirements. The conditions include emissions limitations, operating limitations, and testing, monitoring, record keeping and reporting requirements that ensure compliance with air quality laws, ordinances, regulations and standards (LORS).

Energy Commission staff reviewed the 2010 petition and found that it complied with the requirements of Title 20, Section 1769(a) of the California Code of Regulations and

recommended approval of SDG&E's petition to modify the PEC Project and amend related Conditions of Certification. On December 15, 2010, the California Energy Commission adopted Staff's recommendations and approved the changes to the Commission Decision for the PEC. New and amended conditions of certification were issued in Order No. 10-1215-18 for the Palomar Energy Center to ensure compliance with all applicable LORS. The following two conditions of certification were included in this Order:

AQ-SC13 Testing and maintenance of the emergency engine shall be preformed between the hours of 10:00 am and 3:00 pm, and shall not exceed one hour per week.

AQ-56 This internal combustion engine shall not exceed 52 hours of operation per calendar year for non-emergency purposes (testing and maintenance).

The ATC permit issued by the SDAPCD on May 11, 2010 contains a condition (#2) with the exact same wording as condition AQ-56. However, the ATC does not contain a condition that is the equivalent of AQ-SC13, and there are no short-term restrictions on the hours of operation of this engine contained in the ATC permit issued by SDAPCD. SDG&E can perform all of the maintenance and testing needed for this engine within 52 hours per year between the hours of 10:00 am and 3:00 pm. Therefore, the only change that is being requested in this petition is the removal of the restriction for this activity to only one hour per week. AQ-56 will not change and AQ-SC13 is proposed to be changed as follows:

AQ-SC13 Testing and maintenance of the emergency engine shall be preformed between the hours of 10:00 am and 3:00 pm, ~~and shall not exceed one hour per week.~~

3.0 NECESSITY (Sec. 1769(a)(1)(B))

SDG&E installed the critical services generator in 2010 upon approval of the Petition to Amend (PTA). The engine has not operated properly since installation. SDG&E and Cummins have made several attempts at repair of the engine within the one hour per week allowance, but have been unsuccessful in finding and repairing the problem. It is expected that operating the engine between the hours of 10:00 am and 3:00 pm in a week would be sufficient to trouble shoot and repair this engine. Therefore, elimination of the one hour per week limitation is needed to allow this work to be done.

4.0 TIMING (Sec. 1769(a)(1)(C) and (D))

SDG&E could not anticipate that more than one hour per week would be needed for troubleshooting at the time of approval since normal testing and maintenance of this type of engine can typically be accomplished in less than one hour per week. (Note: since testing and maintenance will take less than an hour in most weeks, e.g., about half an hour per week, occasional weeks with more than one hour of testing and maintenance can still be kept under 52 hours in the entire year.)

5.0 ANALYSIS OF THE EFFECT OF THE MODIFICATIONS ON THE ENVIRONMENT (Sec. 1769(a)(1)(E))

The 2010 PTA contained emissions estimates for the critical services generator for five criteria pollutants. The estimated emissions are very low, with all pollutant emissions estimated to be less than 0.2 tons per year (tpy). For example, NO_x is estimated to be 0.12 tpy and PM₁₀ is estimated to be a maximum of 0.003 tpy. Since no change is proposed to the limitation of 52 hours per year for testing and maintenance, these maximum annual emissions will not change. Furthermore, the maximum hourly emissions will not change as a result of this amendment.

During the processing of the 2010 PTA, SDG&E provided a dispersion modeling analysis at the request of CEC Staff. The primary concern at that time was compliance with the 1-hour NO₂ California and National Ambient Air Quality Standards (CAAQS/NAAQS). The time of day restriction to only perform testing and maintenance between the hours of 10:00 am and 3:00 pm was due to the fact that during some days of the year, higher concentrations were modeled to occur during the more stable post-sunset to pre-dawn hours when the atmosphere can be very stable. Therefore, the time of day restriction is not proposed to change.

The modeling showed that the testing would not lead to exceedances of the 1-hour CAAQS or NAAQS if the engine is operated for testing and maintenance during any or all of the hours in this five hour period from 10:00 am and 3:00 pm during all times of the year. This is because the analysis for comparison to a 1-hour CAAQS/NAAQS looks at discrete hours only. Therefore, the analysis showed that the engine could be tested during multiple hours on the same day as long as it was done between 10:00 am and 3:00 pm, and would remain in compliance with the applicable standards.

Since there are no modifications proposed for the existing generator, no change to the annual limitation and no change to the prior modeling analysis, there will be negligible impacts on air quality and the requested change will have no effects on any of the other technical areas.

6.0 COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) (Sec. 1769(a)(1)(F))

The elimination of the one hour per week limitation will not have any environmental impacts and will comply with all applicable LORS. The SDAPCD permit to operate only contains the restriction of the 52 hours per year, and does not include the time of day or the hour per week limitation. As described above, the hour per week limitation is not needed to ensure compliance with the 1-hour NO₂ CAAQS or NAAQS. Thus, the proposed change to the condition will not affect the ability of the facility to comply with LORS, nor is it anticipated to affect nearby property owners or parties in the application proceedings or the public.

**7.0 POTENTIAL EFFECTS ON PUBLIC AND NEARBY PROPERTY OWNERS
(Sec. 1769(a)(1)(G and I))**

The elimination of the one hour per week limitation will not have any environmental impacts and will comply with all applicable LORS. Thus, the proposed change is not anticipated to affect nearby property owners or parties in the application proceedings or the public.

8.0 LIST OF PROPERTY OWNERS (Sec. 1769(a)(1)(H))

A list of property owners within 1,000 feet of the plant site has previously been provided to the Commission Compliance Project Manager.

9.0 SUMMARY OF REQUEST

There are no changes proposed to the annual emissions limitations. As demonstrated above, elimination of the one hour per week limitation will not have an effect on the public or the environment. The change will not affect compliance with applicable LORS. Accordingly, SDG&E asks that Commission Staff expedite review of this petition and request Commission approval of the proposed modified conditions in accordance with California Code of Regulations, Title 20, Section 1769.

Respectfully Submitted,



Jason T. Dobbs
Compliance Administrator
Dated: December 17, 2012