DOCKETED

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Document Title:	Staff Analysis for Canyon Power Plant (CPP) to Amend Air Quality Conditions of Certification
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DATE: February 6, 2015

TO: Interested Parties

FROM: Jonathan Fong, Compliance Project Manager

SUBJECT: **Canyon Power Plant (07-AFC-09C)**
Staff Analysis of Amendment Proposal(s)

On September 29, 2014, the Southern California Public Power Authority (SCPPA) filed a petition with the California Energy Commission (Energy Commission) requesting to modify the Final Decision for the Canyon Power Plant (CPP). Staff prepared an analysis of this proposed change that can be reviewed on the Energy Commission website for this facility (see below).

The CPP, a simple-cycle, natural gas- fired 200-megawatt facility, was certified by the Energy Commission in its Decision on March 17, 2010, and began commercial operation on September 15, 2011. The facility is located in the city of Anaheim, in Orange County, California.

Energy Commission staff (staff) reviewed the petition and assessed the impacts of this proposal on environmental quality and on public health and safety. In the Staff Analysis, Energy Commission staff recommends the modification of Air Quality Conditions of Certification, **AQ-SC7, AQ-1**, **AQ-2**, **AQ-4**, **AQ-10**, **AQ-11**, **AQ-12**, **AQ-14**, **AQ-16, AQ-17**, **AQ-20**, **AQ-22**, **AQ-23**, **AQ-24**, **AQ-26**, and **AQ-31.** Energy Commission staff is also proposing to delete Air Quality Conditions of Certification **AQ-3**, **AQ-8**, and **AQ-15** because the requirements are no longer applicable to CPP. Energy Commission staff is proposing to add Air Quality Conditions of Certification **AQ-32**, **AQ-33** and **AQ-34.** It is staff's opinion that, with the implementation of these new and/or revised conditions, the facility would remain in compliance with applicable laws, ordinances, regulations, and standards, and the proposed changes to conditions of certification would not result in any significant, adverse, direct, indirect, or cumulative impacts to the environment (20 Cal. Code of Regs., § 1769). Energy Commission staff intends to recommend approval of the petition at the March 11, Business Meeting of the Energy Commission.

The Energy Commission's webpage for this facility, http://www.energy.ca.gov/sitingcases/canyon/, has a link to the petition and the Staff Analysis on the right side of the webpage in the box labeled "Compliance Proceeding." Click on the "Documents for this Proceeding (Docket Log)" option. After the Final Decision, the Energy Commission's Order regarding this petition will also be available from the same webpage.

This notice has been mailed to the Commission's list of interested parties and property owners adjacent to the facility site. It has also been e-mailed to the facility listserv. The listserv is an automated Energy Commission e-mail system by which information about this facility is e-mailed to parties who have subscribed. To subscribe, go to the Commission's webpage for this facility, cited above, scroll down the right side of the project webpage to the box labeled "Subscribe," and provide the requested contact information.

Any person may comment on the Staff Analysis. Those who wish to comment on the analysis are asked to submit their comments within 30 days of the date of this notice/by 5:00 p.m., March 9, 2015. To use the Energy Commission's electronic commenting feature, go to the Energy Commission's webpage for this facility, cited above, click on the "Submit e-Comment" link, and follow the instructions in the on-line form. Be sure to include the facility name in your comments. Once submitted, the Energy Commission Dockets Unit reviews and approves your comments, and you will receive an e-mail with a link to them.

Written comments may also be mailed or hand-delivered to:

California Energy Commission
Dockets Unit, MS-4
Docket No. 07-AFC-09C
1516 Ninth Street
Sacramento, CA 95814-5512

All comments and materials filed with and approved by the Dockets Unit will be added to the facility Docket Log and become publically accessible on the Energy Commission's webpage for the facility.

If you have questions about this notice, please contact Jonathan Fong, Compliance Project Manager, at (916) 654-5005, or by fax to (916) 654-3882, or via e-mail to Jonathan.Fong@energy.ca.gov.

For information on participating in the Energy Commission's review of the petition, please call the Public Adviser at (800) 822-6228 (toll-free in California) or send your e-mail to publicadviser@energy.ca.gov. News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by e-mail to mediaoffice@energy.ca.gov.

Mail List 7275
Canyon Listserv

CANYON POWER PLANT (07-AFC-09C)
Petition to Modify the Final Decision
EXECUTIVE SUMMARY
Prepared by Jonathan Fong

INTRODUCTION

On September 29, 2014, the Southern California Public Power Authority (SCPPA), filed a petition with the California Energy Commission (Energy Commission) requesting to amend certain Air Quality conditions of certification in the Final Decision for the Canyon Power Plant (CPP). The CPP is a 200-megawatt (MW), simple, natural-gas generating facility, located in the city of Anaheim, in Orange County, California. The project was certified by the Energy Commission March 17, 2010, and began commercial operation on September 15, 2011.

The purpose of the Energy Commission's review process is to assess any impacts the proposed modifications would have on environmental quality and on public health and safety. The process includes an evaluation of the consistency of the proposed changes with the Energy Commission's Final Decision and an assessment of whether the project, as modified, would remain in compliance with applicable laws, ordinances, regulations, and standards (20 Cal. Code Regs., § 1769).

This Staff Analysis contains staff's analysis of the affected technical area of Air Quality.

DESCRIPTION OF PROPOSED MODIFICATIONS

Energy Commission staff (staff) reviewed the petition and assessed the impacts of this proposal on environmental quality and on public health and safety. In the Staff Analysis, Energy Commission staff recommends the modification of Air Quality Conditions of Certification, **AQ-SC7, AQ-1**, **AQ-2**, **AQ-4**, **AQ-10**, **AQ-11**, **AQ-12**, **AQ-14**, **AQ-16, AQ-17**, **AQ-20**, **AQ-22**, **AQ-23**, **AQ-24**, **AQ-26**, and **AQ-31.** Energy Commission staff is also proposing to delete Air Quality Conditions of Certification **AQ-3**, **AQ-8**, and **AQ-15** because the requirements are no longer applicable to CPP. Energy Commission staff is proposing to add Air Quality Conditions of Certification **AQ-32**, **AQ-33** and **AQ-34.** It is staff's opinion that, with the implementation of these new and/or revised conditions, the facility would remain in compliance with applicable laws, ordinances, regulations, and standards, and the proposed changes to conditions of certification would not result in any significant, adverse, direct, indirect, or cumulative impacts to the environment (20 Cal. Code of Regs., § 1769). Energy Commission staff intends to recommend approval of the petition at the March 11, Business Meeting of the Energy Commission.

NECESSITY FOR THE PROPOSED MODIFICATIONS

The CPP is requesting modifications to certain Air Quality conditions of certification to operate in compliance with their revised South Coast Air Quality Management District (SCAQMD) permits to operate. The modifications are necessary for the CPP to meet qualifying criteria of the new Flexible Resource Adequacy Criteria and Must Offer Obligation (FRAC-MOO) initiative established by the California Independent Service Operator (CAISO). The FRAC-MOO initiative was developed by CAISO to ensure there is sufficient flexible capacity in order to respond to the variability and uncertainty of renewable energy resources. Effective on January 1, 2015, the initiative requires qualifying base ramping resources to be capable of starting two times per day and operating at a minimum of six hours per day. In order for the CPP to qualify as a base ramping resource, the Air Quality Conditions of Certification need to be amended to be able to operate according to these new criteria.

Without the amendment, CPP could at some point disqualify as flexible resource adequacy capacity resulting in COA needing to secure power from other resources or pay CAISO a penalty for not providing resource adequacy capacity.

STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

The technical area sections contained in this Staff Analysis include staff-recommended changes to the existing Air Quality conditions of certification. Energy Commission technical staff reviewed the petition for potential environmental effects and consistency with applicable Laws, Ordinances, Regulations and Standards (LORS). Staff has determined that the technical or environmental areas of Biological Resources, Cultural Resources, Facility Design, Geological Hazards and Resources, Hazardous Materials Management, Industrial Safety and Fire Protection, Land Use, Noise and Vibration, Paleontological Resources, Public Health, Socioeconomics, Soil and Water, Traffic and Transportation, Transmission Line Safety and Nuisance, Transmission System Engineering, Visual Resources, Waste Management are not affected by the proposed changes, and no revisions or new conditions of certification are needed to ensure the project remains in compliance with all applicable LORS for these areas. A summary of the technical areas responses to the potential impacts of the proposed modification are included in Table 1 below.

Staff determined, however, that the technical areas of Air Quality would be affected by the proposed project changes and has proposed modifications to Air Quality Conditions of Certification **AQ-SC7, AQ-1**, **AQ-2**, **AQ-4**, **AQ-10**, **AQ-11**, **AQ-12**, **AQ-14**, **AQ-16, AQ-17**, **AQ-20**, **AQ-22**, **AQ-23**, **AQ-24**, **AQ-26**, and **AQ-31.** Energy Commission staff is also proposing to delete Air Quality Conditions of Certification **AQ-3**, **AQ-8**, and **AQ-15** because the requirements are no longer applicable to CPP. Energy Commission staff is proposing to add Air Quality Conditions of Certification **AQ-32**, **AQ-33** and **AQ-34.** in order to assure compliance with LORS and to reduce potential environmental impacts to a less than significant level. An analysis of the potential impacts of the proposed modifications is included in the Air Quality Staff Analysis section below.

Executive Summary Table 1
Summary of Impacts for Each Technical Area

TECHNICAL AREAS REVIEWED	STAFF RESPONSE			Revised Conditions of Certification Recom-mended
	Technical Area Not Affected	No Significant Environmental Impact*	Process As Amendment	
Air Quality			X	X
Biological Resources	X			
Cultural Resources	X			
Efficiency	X			
Facility Design	X			
Geological & Paleontological Resources	X			
Hazardous Materials Management	X			
Land Use	X			
Noise & Vibration		X		
Paleontological Resources	X			
Public Health		X		
Socioeconomics	X			
Soil & Water Resources	X			
Traffic & Transportation	X			
Transmission Line Safety & Nuisance	X			
Transmission System Engineering	X			
Visual Resources	X			
Waste Management	X			
Worker Safety & Fire Protection	X			

*There is no possibility that the proposed modifications may have a significant effect on the environment, and the modifications will not result in a change in or deletion of a condition adopted by the Commission in the Final Decision, or make changes that would cause project noncompliance with any applicable laws, ordinances, regulations, or standards (20 Cal. Code Regs., § 1769 (a)(2)).

ENVIRONMENTAL JUSTICE

Environmental justice communities are commonly identified as those where residents are predominantly minorities or low-income; where residents have been excluded from the environmental policy setting or decision-making process; where they are subject to

a disproportionate impact from one or more environmental hazards; and where residents experience disparate implementation of environmental regulations, requirements, practices, and activities in their communities. Environmental justice efforts attempt to address the inequities of environmental protection in these communities.

An environmental justice analysis is composed of three parts:

1. identification of areas potentially affected by various emissions or impacts from a proposed project;

2. a determination of whether there is a significant population of minority persons or persons below the poverty level living in an area potentially affected by the proposed project; and

3. a determination of whether there may be a significant adverse impact on a population of minority persons or persons below the poverty level caused by the proposed project alone, or in combination with other existing and/or planned projects in the area.

CALIFORNIA RESOURCES AGENCY

California law defines environmental justice as "the fair treatment of people of all races, cultures and income with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Gov. Code §65040.12; Pub. Resources Code, §72000). All departments, boards, commissions, conservancies and special programs of the Resources Agency must consider environmental justice in their decision-making process if their actions have an impact on the environment, environmental laws, or policies. Such actions that require environmental justice consideration may include:

- adopting regulations;
- enforcing environmental laws or regulations;
- making discretionary decisions or taking actions that affect the environment;
- providing funding for activities affecting the environment; and
- interacting with the public on environmental issues.

DEMOGRAPHIC SCREENING ANALYSIS

As part of its CEQA analysis for the Petition to Amend the Canyon Power Plant Decision, Energy Commission staff used demographic screening to determine whether a low-income and/or minority population exists within the potentially affected area of the Canyon Power Plant project site[1]. The demographic screening is based on information contained in two documents: Environmental Justice: Guidance Under the National Environmental Policy Act (CEQ, December, 1997) and Guidance for Incorporating

[1] Demographic screening data is presented in the end of this section.

Environmental Justice Concerns in EPA's Compliance Analyses (U.S. EPA, April, 1998), which provides staff with information on outreach and public involvement. The Council on Environmental Quality document defines minority individuals as members of the following groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

Based on the 2010 Census data presented in **Executive Summary Figure 1**, the total population within the six-mile buffer of the project site was 653,217 persons with a minority population of 403,157 persons, or 61.7 percent of the total population. As the minority population is greater than fifty percent, this population constitutes an environmental justice population as defined by Environmental Justice: Guidance Under the National Environmental Policy Act, and would trigger further scrutiny for purposes of an environmental justice analysis. Staff's demographic screening also identifies the presence of below-poverty-level populations within a six-mile buffer of the proposed project site. The Council on Environmental Quality and U.S. Environmental Protection Agency guidance documents identifies a fifty percent threshold to determine whether minority populations are considered environmental justice populations, but does not provide a discrete threshold for below-poverty-level populations. Using census data staff compares the below-poverty-level populations in the six-mile buffer to other appropriate reference geographies. Approximately 14.1 percent of the population or 230,135 people within the six-mile buffer live below the federal poverty level, which is comparable to the below-poverty-level population in the comparison geographies closer to the project site. When staff from the thirteen affected technical areas[2] have identified the PTA would have an effect in their technical area, the staff then considered the potential for disproportionate impacts on the environmental justice population.

PROJECT DEMOGRAPHIC SCREENING DATA

Table 1
Minority Populations within the Project Area Plus Orange County

	Six-Mile Buffer of Project Site	Anaheim city	Anaheim-Santa Ana-Garden Grove CCD*	Orange County
Total	653,217	336,265	1,648,519	3,010,232
Not Hispanic or Latino: White alone	250,060	92,362	506,898	1,328,499
Minority	403,157	243,903	1,141,621	1,681,733
Percent Minority	**61.72%**	**72.53%**	**69.25%**	**55.87%**

[2] The thirteen technical staff/areas are Air Quality, Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soil and Water Resources, Water Supply, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, Cultural Resources, and Waste Management.

Table 2
Poverty Data within the Project Area Plus Orange County

Area	Total			Income in the past 12 months below poverty level			Percent below poverty level		
	Estimate*	MOE	CV (%)	Estimate	MOE	CV (%)	Estimate	MOE	CV (%)
Census County Division Used to Determine Poverty Status-Anaheim-Santa Ana-Garden Grove CCD	1,631,361	±2,125	0.08	230,135	±6,350	1.68	14.10%	±0.40	1.73
Comparison Geographies									
Anaheim city	334,353	±456	0.08	52,087	±3,075	3.59	15.60%	±0.90	3.51
Orange County	2,985,156	±1,694	0.03	349,220	±7,939	1.38	11.70%	±0.30	1.56
California	36,575,460	±3,416	0.01	5,590,100	±38,396	0.42	15.30	±0.10	0.40

Note: * Population for whom poverty status is determined. **Source:** US Census Bureau 2012.

STAFF RECOMMENDATIONS AND CONCLUSIONS

Staff concludes that the following required findings, mandated by Title 20, California Code of Regulations, section 1769 (a)(3), can be made, and staff recommends approval of the petition by the Energy Commission:

- The proposed modification(s) would not change the findings in the Energy Commission's Decision pursuant to Title 20, California Code of Regulations, section 1755;
- There would be no new or additional unmitigated, significant environmental impacts associated with the proposed modification(s);
- The facility would remain in compliance with all applicable laws, ordinances, regulations, and standards;
- The proposed modification(s) would be beneficial to the public, and/or the applicant, because the proposed modifications would allow the CPP to continue to satisfy the city of Anaheim's resource adequacy obligation as a load serving entity with CAISO.
- The proposed modification(s) are justified because there has been a substantial change in circumstances since the Energy Commission certification, in that the CAISO has adopted new criteria as part of their Flexible Resource Adequacy Criteria and Must Offer Obligation (FRAC-MOO) initiative. The initiative requires qualifying base ramping resources to be capable of starting two times per day and operating at a minimum of six hours per day.

REFERENCES

CEQ 1997 – Council on Environmental Quality. *Environmental Justice: Guidance Under the National Environmental Policy Act. December 10,* 1997, <http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_ceq1297.pdf>.

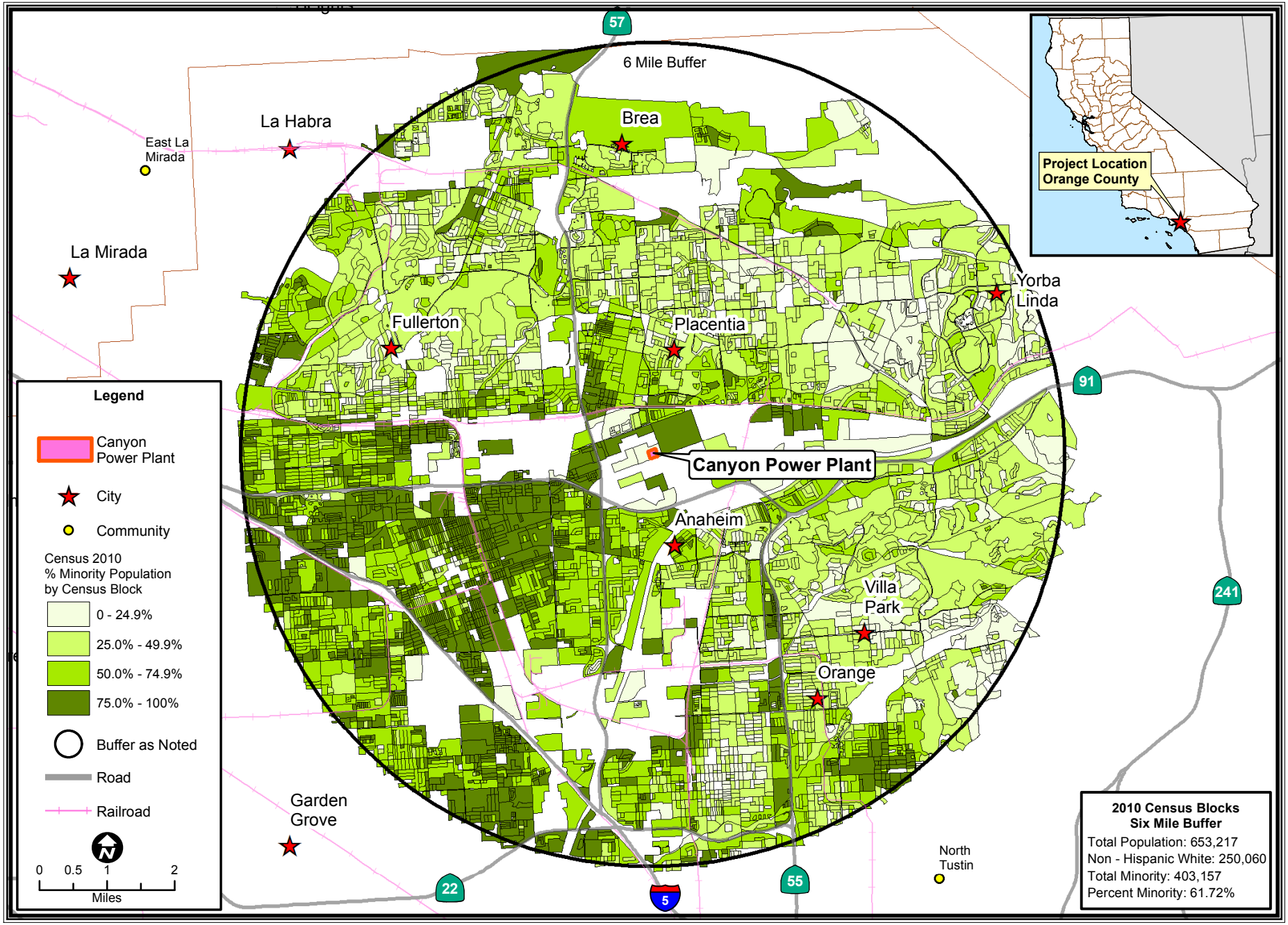
US Census Bureau 2010 – United States Census Bureau. P2: Hispanic or Latino, and Not Hispanic or Latino by Race, Universe: Total population, 2010 Census Redistricting Data (Public Law 94-171) Summary File. <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

US Census Bureau 2012 – US Census S1701 Poverty Status in the Past 12 Months 2008-2012 American Community Survey 5-Year Estimates, <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

US EPA 1998 – United States Environmental Protection Agency, *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses*. April 1998. <http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_epa0498.pdf>.

EXECUTIVE SUMMARY - FIGURE 1

Canyon Power Plant - Census 2010 Minority Population by Census Block - Six Mile Buffer



CALIFORNIA ENERGY COMMISSION, SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION

SOURCE: Multinet, Census 2010 - PL94-171, Open Street Map City Data January 2014

CANYON POWER PLANT (07-AFC-9C)
Request to Amend Final Commission Decision
Air Quality Analysis
Nancy Fletcher

INTRODUCTION

On September 29, 2014, Southern California Public Power Authority (SCPPA) filed a petition (SCPPA 2014) with the California Energy Commission (Energy Commission) requesting an amendment to the Air Quality Conditions of Certification for the Canyon Power Plant (CPP). SCPPA is proposing to modify the license to increase each turbine's allowable operation and base calculated particulate matter emissions on source test results. In addition, SCPPA is proposing to reduce the maximum allowable operating hours for the black start engine. CPP is a nominal 200-megawatt (MW) electricity generating facility consisting of four natural gas-fired GE LM6000 PC Sprint model simple cycle turbines equipped with water injection, selective catalytic reduction, and, an oxidation catalyst system, a cooling tower, and a 1,141 brake horse power (BHP) diesel emergency internal combustion engine used to start the plant in the event of a loss of grid power.

CPP is located on a 10-acre parcel in the city of Anaheim. The original Energy Commission Decision approving CPP was published on March 17, 2010. Construction of the plant began April 5, 2010, and commercial operation began September 15, 2011. On September 17, 2012, the original Energy Commission Decision was amended to increase the carbon monoxide (CO) start-up limit for the facility turbines.

The SCPPA is a consortium of municipalities and an irrigation district, established to develop, construct, and operate, electrical generation and transmission projects. SCPPA is the owner of the facility; however the city of Anaheim (COA) is the operating agent for CPP. COA is under a long-term contract with the SCPPA to purchase 100% of the capacity and energy output of CPP for the life of the facility. COA is a load serving entity operating within the California Independent System Operator (CAISO). Effective January 1, 2015, new CAISO policies will require COA to provide flexible resources to satisfy the load serving entity's resource adequacy obligation. In order for CPP to qualify as a flexible resource, CPP will now have to meet new criteria established by the CAISO as explained below.

The CAISO's Flexible Resource Adequacy Criteria and Must Offer Obligation (FRAC-MOO) initiative was developed to ensure there is sufficient flexible capacity in order to respond to the variability and uncertainty of renewable energy resources. The FRAC-MOO requires qualifying base ramping resources to be capable of starting two times per day and operating at a minimum of six hours per day. Canyon currently operates to satisfy COA's resource adequacy obligation. SCPPA believes the proposed changes to the conditions of certification would allow CPP to qualify as a flexible base ramping resource and continue to satisfy COA's resource adequacy obligation. Although the facility is proposing to increase the allowable operation of each turbine, the facility's actual operation of each turbine is not necessarily going to change. Without the amendment, CPP could at some point disqualify as flexible

resource adequacy capacity resulting in COA needing to secure power from other resources or pay CAISO a penalty for not providing resource adequacy capacity.

SCPPA is requesting revisions to Air Quality Conditions of Certification **AQ-1**, **AQ-2** and **AQ-20** to increase the monthly emission limits to the equivalent of 335 total operating hours per turbine for each month, consisting of 289 normal operating hours, 60 start-ups and shutdowns per turbine, and 10 hours of maintenance testing for each turbine, and to reduce the number of black start engine operating hours from 200 to 50 per year. CPP is currently licensed with emission limits corresponding to 90 hours of normal operation per turbine for each month (1,080 hours per year) with 20 startups/shutdowns per month (240 per year) and no maintenance hours of operation.

On August 30, 2013, an application to modify the permit language to allow an emission increase was submitted to the South Coast Air Quality Management District (SCAQMD). Three amendments to the application were requested as CAISO's FRAC-MOO requirements evolved. The original application requested an increase in emissions corresponding to 160 hours of normal operation per turbine per month, 22 startups/shutdowns and the addition of 10 hours of maintenance per year. In addition the amendment request included reducing the particulate matter less than 10 microns (PM10) emission factor used to calculate PM10 emissions from the turbine and reducing the black start engine operating hours. During the review process, the COA requested the project be placed on hold due to discussion with CAISO regarding the operating schedule and the determination that additional operating hours would be needed to meet FRAC-MOO requirements.

Subsequent amendment requests were filed with SCAQMD on January 18, 2014, June 5, 2014, and June 26, 2014. The final revised application requested an emission increase corresponding to 280 normal operating hours per month per turbine, 60 startup/shutdowns per month per turbine, and an addition of 10 hours for maintenance per turbine per year. Annual emissions were requested to correspond to the highest of two operating profiles, either 2,200 normal operating hours with 540 startup/shutdowns and 10 maintenance hours per year, or 2,674 normal operating hours with 365 startup/shutdowns and 10 maintenance hours per year. In addition, the current application continues to request the re-evaluation of the LM600 particulate emissions using a lower PM10 emission rate demonstrated during source testing and the reduction of allowable operating hours for the black start engine, from 200 to 50 hours per year. SCAQMD provided a draft evaluation of these changes to Energy Commission staff on December 12, 2014 for review. SCAQMD's draft evaluation and permit completed the review process for the public and the U.S. Environmental Protection Agency (U.S EPA).

The requested changes would result in an increase of emissions from the facility on a monthly and annual basis. Emission Reduction Credits (ERCs) and Regional Clean Air Incentives Market (RECLAIM) trade credits (RTCs) would be required to fully mitigate the emission increases of all nonattainment pollutants and their precursors. The proposed mitigation would reduce the proposed facility modifications **Air Quality** impacts to a less than significant level, including impacts to the environmental justice population. Therefore, there

are no **Air Quality** environmental justice issues related to the proposed facility modifications and no minority or low-income populations would be significantly or adversely impacted.

The proposed changes in operations would result in an increase of greenhouse gas (GHG) emissions. The facility owner expects to operate the proposed new gas turbines with less than 60 percent capacity factor annually, thus the proposed new gas turbines are not subject to the Greenhouse Gases Emission Performance Standard (Title 20, California Code of Regulations, section 2900 et seq.). The GHG emissions would still be subject to the California Air Resources Board (CARB) adopted regulations implementing cap-and-trade. The cap-and-trade program became active in January 2012, with enforcement beginning in January 2013. CARB staff continues to develop and implement regulations to refine key elements of the Greenhouse Gases (GHG) reduction measures to improve their linkage with other GHG reduction programs. The proposed facility modifications are subject to federal and state mandatory GHG reporting and state cap-and-trade requirements.

LAWS, ORDINANCES, REGULATIONS AND STANDARDS COMPLIANCE

The SCAQMD reviewed the requested modifications and determined the changes would comply with their regulations. SCAQMD submitted to Energy Commission staff for review a draft engineering evaluation of the proposed amendments. **Air Quality Table 1** includes a summary of the air quality laws, ordinances, regulations and standards (LORS) applicable to the proposed amendment. The requested changes were evaluated by staff for consistency with the following LORS. The conditions of certification in the original Energy Commission Decision and any and all amendments thereafter ensure that the facility would remain in compliance with all LORS.

Air Quality Table 1
Laws, Ordinances, Regulations, and Standards (LORS)

Applicable Law	*Description*
Federal	**U.S. Environmental Protection Agency (EPA)**
Federal Clean Air Act Amendments of 1990 (FCAAA), Title 40 Code of Federal Regulations (CFR) Part 50	National Ambient Air Quality Standards (NAAQS).
79 Fed, Reg. 34830 (June 18, 2014)	Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units. Under the FCAAA Section 111d, the EPA is proposing to limit greenhouse gas (GHG) emissions from electric generation units. The proposed regulation is not expected to be applicable because CPP is expecting to sell less than one-third of its potential electrical output to a utility distribution system on a three-year rolling average.
40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines – Requires the proposed diesel engines to achieve specific emission standards depending on the size and model year of the engine.

Applicable Law	*Description*
40 CFR 60, Subpart KKKK	New Source Performance Standards (NSPS) for Stationary Gas Turbines – Establishes emission standards for turbines with heat inputs greater than 10 MMBtu/hr: 15 parts per million (ppm) nitrogen oxide (NOx) at 15% oxygen (O2) and fuel sulfur limit of 0.060 lb sulfur oxide (SOx) per million British thermal units (MMBtu) heat input. The turbines are limited to 2.5 ppm NOx and testing and monitoring requirements are expected to demonstrate compliance with these limits.
40 CFR 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary reciprocating Internal Combustion Engines – Establishes emission limitations and operating limitations for internal combustion (IC) engines located at major and area sources of hazardous air pollutant (HAP) emissions. New engines comply by meeting the requirements of 40 CFR 60 Subpart IIII.
40 CFR 64	Compliance Assurance Monitoring (CAM)–CPP is considered a major source, subject to Best Available Control Technology (BACT) limits and uses control equipment to meet BACT limits. Post control emissions of NOx, carbon monoxide (CO) and volatile organic compound (VOC) emissions are less than thresholds, therefore CAM regulations are not applicable.
40 CFR 89 Subpart B	Emission Standards and Certification Provisions – Establishes oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter (PM) exhaust emission standards, and smoke emission standards.
Regulation XXXI (40 CFR Parts 72-78)	Acid Rain Permit Program—Acid rain requirements establish controls for sulfur dioxide (SO_2) and NOx emissions from fossil fuel-fired combustion used to generate electricity. Facilities are required to cover SO_2 emissions with allowances or offsets. The CPP facility would continue to comply with SO_2 emissions monitoring by using the gas meter in conjunction with natural gas composition analysis.
State	**California Air Resources Board and Energy Commission**
California Health & Safety Code (H&SC) §41700 (Nuisance Regulation)	Prohibits discharge of such quantities of air contaminants that cause injury, detriment, nuisance, or annoyance.
H&SC 40910-40930	Permitting of source needs to be consistent with approved clean air plan.
Airborne Toxic Control Measure for Stationary Compression Ignition Engines (ATCM, 17 CCR§93115)	Establishes operating requirements and emission standards for emergency standby diesel-fueled compression ignition (CI) engines [17 CCR 93115.6]. The emission standard is 0.15 grams per brake horsepower hour (g/bhp-hr) diesel particulate matter for emergency engines. Maintenance is limited to 50 hours of operation per year for maintenance and engine testing.

Applicable Law	*Description*
California Code of Regulations (CCR)	Greenhouse Gases Emission Performance Standard (EPS), Article 1 –Provisions Applicable to Power Plants 10 MW and Larger (SB1368) —The annual capacity factor will be less than the required 60% capacity factor therefore the EPS is not applicable. See analysis for discussion.
Local	**South Coast Air Quality Management District (SCAQMD)**
Regulation II Permits Rule 212	Standards for Approving Permits and Issuing Public Notice—Outlines specific criteria for approving permits and issuing public notice. Outlines requirements for Regional Clean Air Incentives Market (RECLAIM) facilities. The facility is not located within 1,000 feet of a school and the proposed changes will not result in an increase in emissions of toxic contaminants that would expose a person to levels above noticing thresholds. However there are proposed on-site emission increases for criteria pollutants that exceed the established threshold triggering public notice. The public notice will be combined with Rule 3006 Title V public notice.
Regulation II Permits Rule 218	Continuous Emission Monitoring (CEM)—Each turbine is operating with certified CEMS. Retention of record and reporting requirements are followed.
Regulation IV Prohibitions Rule 401	Visible Emissions—Establishes limits on visible emissions. Visible emissions are not expected from the CPP combustion turbine generators (CTGs) under normal operation.
Regulation IV Prohibitions Rule 402	Nuisance—Prohibits the discharge of air contaminants or other material which could detrimentally impact the public. Nuisance problems are not expected from CPP under normal operation.
Regulation IV Prohibitions Rule 407	Liquid and Gaseous Air Contaminants—Establishes a CO emission limit of 2,000 parts per million by volume (ppmv) from the turbines. The CO emissions from the turbines are controlled to 4 ppmvd (ppmv dry) at 15 percent oxygen (% O_2); meeting this regulation.
Regulation IV Prohibitions Rule 409	Combustion Contaminants—Establishes restrictions on particulate matter emissions from the turbines to 0.1 grain per cubic foot at 12% O_2. The calculated grain loading is expected to be below this limit.
Regulation IV Prohibitions Rule 431.1	Sulfur Content of Gaseous Fuels—Limits the sulfur concentration to 16 ppmv (calculated as hydrogen sulfide) in natural gas. Continued compliance is expected because commercial grade natural gas has an average sulfur content of 4 ppm.
Regulation IV Prohibitions Rule 431.2	Sulfur Content of Liquid Fuels—Limits the sulfur content to 0.05 percent by weight for any liquid fuel purchased. Continued compliance is expected.
Regulation IV Prohibitions Rule 474	Fuel Burning Equipment —This rule is superseded by NOx RECLAIM, pursuant to Rule 2001.

Applicable Law	*Description*
Regulation IV Prohibitions Rule 475	Electric Power generating Equipment—Limits combustion contaminants to 11 lbs/hr or 0.01 grains per standard cubic feet (gr/scf) for power generating equipment greater than 10 MW. Compliance is expected.
Regulation XI Source Specific Standards Rule 1110.2	Emissions from Gaseous- and Liquid-Fueled Engines—Emergency standby engines operating 200 hours or less per year are exempt from this rule. The black start engine will be limited to 50 hours of operation per year.
Regulation XI Source Specific Standards Rule 1134 and 1135	Emissions of NOx from Stationary Gas Turbines/Electric Power Generating Systems—These rules are superseded by NOx RECLAIM pursuant to Rule 2001.
Regulation XIII New Source Review Rule 1303(a)	BACT/LAER (PM10, SOx, VOC, CO)—Best Available Control Technology (BACT) is required for a modified source resulting in an emission increase that is greater than 1 pound per day (lb/day) of any criteria pollutant, any ozone-depleting compound, or ammonia. There is a proposed emission increase for the turbines but not for the emergency engine; however BACT/LAER requirements were analyzed for the gas turbines and the black start emergency engine.
Regulation XIII New Source Review Rule 1303(b)(1)	Modeling—Modeling is required for any new facility or modification resulting in a net emission increase of nonattainment pollutants to demonstrate the emission increase will not cause a violation or make an existing violation significantly worse. An updated modeling analysis was required by SCAQMD.
Regulation XIII New Source Review Rule 1303(b)(2) Rule 1303(b)(3)	Offsets—Offsets are required for facilities or amendments for net emission increases of any nonattainment air contaminant. The original project was entirely offset with ERCs. The SCAQMD analyzed offset requirements for the proposed amendment. SCAQMD determined offsets would be required for PM10, VOC and NOx. Credits have been obtained from the appropriate trading zone and surrendered to SCAQMD.
Regulation XIII New Source Review Rule 1303(b)(4)	Facility Compliance—CPP is in compliance with all applicable rules and regulations of the SCAQMD.
Regulation XIII New Source Review Rule 1303(b)(6)	Major Polluting Facilities—CPP is considered a major polluting facility and the amendment is considered a major modification. The application is for an increase in operating schedule; the facility is currently in compliance and plume visibility requirements are not triggered.
Regulation XIII New Source Review Rule 1313	Permits to Operate—CPP has obtained appropriate permits to operate with the SCAQMD.

Applicable Law	*Description*
Regulation XIII New Source Review Rule 1325	Federal PM2.5 New Source Review Program—Outlines requirements for particulate matter less than 2.5 microns (PM2.5) for any new major polluting facility or major modification to a major polluting facility located in areas designated as non-attainment for PM2.5. CPP pre-project and post-project potential to emit is less than 100 tons per year for NOx, SO_2 and PM2.5. Therefore CPP is not considered a major polluting facility for particulate PM2.5 and Rule 1325 does not apply.
Regulation XIV Toxics and Other Non-Criteria Pollutants Rule 1401	New Source Review of Toxic Air Contaminants (TAC)—Specifies limits for maximum individual cancer risk and acute and chronic hazard index for modifications to existing facilities emitting toxic air contaminants. The risk from the four turbines was modeled and the analysis concluded that the turbines would be in compliance with the rule limits. The black start engine is exempt from this rule.
Regulation XIV Toxics and Other Non-Criteria Pollutants Rule 1470	Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines, amended 5/4/2012—Establishes requirements for diesel engines. The black start engine is considered a standby emergency engine. The engine is equipped with a diesel particulate filter (DPF) verified by the California Air Resources Board (CARB) to meet an 85% reduction. A new condition will be added regarding use of the control equipment during DPF cleaning.
Regulation XVII Prevention of Significant Deterioration (PSD) Rule 1701 Rule 1702 Rule 1706	General, PSD Applicability –Established requirements for attainment emissions. The south coast air basin (SCAB) is in attainment for nitrogen dioxide (NO_2), SO_2, CO and PM10 national ambient air quality standards. CPP is not currently classified as a major PSD source. In addition, the proposed emission increases would not constitute a major PSD source. Therefore PSD is not triggered for the amendment.
Regulation XVII Prevention of Significant Deterioration (PSD) Rule 1714	Prevention of Significant Deterioration (PSD) for Greenhouse Gases (GHGs)— For consistency with the Supreme Court's decision the SCAQMD will not be issuing a PSD permit for greenhouse gases for this project. See discussion in analysis.
Regulation XX Regional Clean Air Incentives Market (RECLAIM) Rule 2005	New Source Review for RECLAIM—Establishes requirements for new or modified facilities subject to the RECLAIM program. BACT is required for a modified source resulting in specified emission increases. The turbines already meet BACT requirements. The required modeling is combined with the Rule 1303(b)(1) modeling analysis. RECLAIM trading credits (RTCs) will be required for the turbines and black start engine. RTCs will be obtained from the appropriate trading zone. The applicant is in compliance with all applicable federal emission limitations or standards. Public notice requirements will be combined with other noticing requirements.

Applicable Law	*Description*
Regulation XXX Title V Permits Rule 3003	Applications—Establishes application procedures for facilities subject to Title V requirements. The SCAQMD determined that the requested amendment is considered a significant permit revision and requires a 45-day EPA review and 30-day public notice period. The SCAQMD submitted the revised CPP Title V permit to EPA for review on December 10, 2014.

SETTING

Federal and state ambient air quality attainment status designations have changed since the Energy Commission Decision. CPP is located in northeastern Anaheim, approximately 3.5 miles northeast of downtown Anaheim and 25 miles southeast of downtown Los Angeles. CPP is located in Orange County, and is part of the South Coast Air Basin. For convenience, staff includes **Air Quality Table 2**, which summarizes the area's attainment status for current state and federal ambient air quality standards (AAQS) for the South Coast Air Basin. The air quality standards are health-based standards established by the U.S. EPA and Air Resources Board (ARB), and are set at levels to protect the health of all members of the public including those most sensitive to adverse air quality impacts such as the elderly, people with existing illnesses, children, and infants.

Air Quality Table 2
SCAQMD Attainment Status

Pollutants	**Attainment Status**	
	Federal Classification	**State Classification**
Ozone (1-hr)	No Federal Standard	**Nonattainment**
Ozone (8-hr)	**Nonattainment**	**Nonattainment**
CO	Unclassified/Attainment	Attainment
NO_2	Unclassified/Attainment	Attainment
SO_2	Attainment	Attainment
PM10	Attainment	**Nonattainment**
PM2.5	**Nonattainment**	**Nonattainment**

Note: Unclassified means the area is treated as if it is in attainment.
Note: December 2014

ANALYSIS

SCPPA is requesting to increase the allowable usage of each of the four turbines, amend the emission factor used to demonstrate compliance with the PM10 limits, and lower the allowable operation hours for the black start engine. SCPPA is requesting to amend Air Quality Conditions of Certification **AQ-1**, **AQ-2** and **AQ-20** to accommodate the change in operation of the turbines and black start engine. The proposed changes were analyzed by SCAQMD and Energy Commission staff. The proposed lower emission factor for PM10 was examined, proposed emissions from the changes were then calculated, the maximum potential emissions were modeled, potential impacts were quantified, mitigation has been

proposed, and the conditions of certification have been reviewed and appropriate changes to the conditions of certification are being proposed. For the purpose of this analysis the terms reactive organic gas (ROG) and volatile organic compound (VOC) will be equivalent.

SCPPA is requesting to amend the emission factor for PM10 listed in Air Quality Condition of Certification **AQ-1** used to calculate the monthly emissions from the LM6000 gas turbines. Per SCAQMD 2014, the current emission factor listed for PM10 is based off the U.S. EPA AP-42, Compilation of Air Pollution Emission Factors. The emission factors in AP-42 can be used for predicting emissions and are generally averages of all available data. The emission factors are assumed to be representative of long-term averages for all facilities in a source category. Data from source specific emissions tests are preferred when available because they provide the best representation of the specific source's actual emissions. SCPPA is proposing to amend the current emission factor used to calculate PM10 emissions with a PM10 emission factor based on source testing.

The PM10 emission factor from the LM6000 gas turbine has been studied by the manufacturer and permitting agencies. The LM6000 gas turbine model is in operation at many facilities, several in California. During the licensing process of the Mariposa Energy Project, GE produced a memorandum titled PM10 Emissions from LM6000 for Mariposa Energy, LLC which included a technical analysis of emissions from LM6000 gas turbines. In the analysis, GE concluded that the combustion process itself is not a major source of PM10 emissions from natural gas fired turbines. The largest contribution to PM10 emissions from natural gas turbines is from sulfur in the fuel, particulate in the ambient air entering the inlet air system, and contaminants in water used for NOx control. In addition, there are uncertainties in the measurement methods. A review of PM10 data from source tests of LM6000 turbines at multiple facilities displayed variations from year to year and from turbine to turbine. Of the 42 PM10 source tests reviewed, five tests exceeded 0.0041 lb/MMBtu and approximately seven tests exceeded 2 lbs/hr. Based on the analysis, GE concluded it wasn't likely that a PM10 emissions rate of 0.0041 lb/MMBtu or 2 lb/hour could be achieved with an appropriate level of confidence, on a consistent basis across all ambient conditions and load points for 50 MW LM6000 gas turbines. However, CPP is proposing a PM10 limit of 1.67 lbs/hr as explained below.

The SCAQMD had previously modified the PM10 emission factor used to calculate emissions from the same turbine model at a separate facility. The modification reduced the emission factor from 6.42 pounds per million cubic feet (lbs/mmcf) (3.0 pounds per hour (lb/hr) at maximum load) to 5.35 lb/mmcf (2.5 lb/hr at maximum load). However, CPP is proposing a PM10 emission factor of 1.67 lb/hour. Therefore the previous source tests for CPP were reviewed and additional source testing was required by SCAQMD to substantiate the proposed rate. The particulate matter (PM) testing conducted at CPP is summarized below in Table 3.

Air Quality Table 3
Particulate Matter Source Test Data

Date	Method	Turbine No. 1 (lb/hr)	Turbine No. 2 (lb/hr)	Turbine No. 3 (lb/hr)	Turbine No. 4 (lb/hr)
June 11-13, 2011	PM SCAQMD Method 5.1	-	-	2.07	2.15
August 9-14, 2011		1.48	1.48	-	-
November 13-14, 2012	PM SCAQMD Method 5.1	-	-	0.66	0.40
	PM10 EPA Method 201A	-	-	0.55	0.48
October 22-23, 2013	PM SCAQMD Method 5.1	0.44	0.42	-	-
	PM10 U.S. EPA Method 201A	0.42	0.83	-	-

Source: SCAQMD 2014.

The source test results for the initial testing in 2011 are higher than the successive testing results. The initial testing only used SCAQMD Method 5.1 which tests for total particulate matter whereas the 2012 testing used both SCAQMD Method 5.1 and U.S. EPA Method 201A. U.S. EPA Method 201A further tests for particulate matter less than 10 microns in size. Particulate emissions from a natural gas-fired turbine are very small; estimated at less than 1 micrometer in size. Therefore the PM and PM10 emission are expected to be equivalent. The testing performed on turbine No. 1 and No. 2 in 2011 and the subsequent testing of all four turbines was performed by the same independent testing company. The initial testing of turbine No. 3 and turbine No. 4 was performed by a different testing company. The 2011 testing was performed for compliance purpose whereas the 2012 testing was performed for informational purposes to compare the different methods and to support a lower particulate emission rate. The testing company stated that the same equipment was used during the testing. However, when performing the 2012 tests the company was diligent with the cleanliness of the sampling equipment and was more precise with the weighing which allowed an extra digit of precision to be used with the readings. In addition, during the initial testing for turbine No. 1 and turbine No. 2, impinger water was noted to be discolored. Discoloration of impinger water is not common for PM10 testing from natural gas-fired turbines and it is speculated that the discolorations could have been a result from dust in the air due to construction activities at the facility.

After reviewing the specific source test information for the facility, the SCAQMD concluded the testing supported a decrease in the PM10 emission rate. Emission calculations for PM10 were evaluated based on the proposed PM10 emission rate of 1.67 lb/hr. The proposed rate is approximately 24-50% higher than the 2012 and 2013 testing results and provides room for potential variation in compliance testing.

Accordingly, the SCAQMD is proposing to increase the compliance testing frequency for PM10 to verify the turbines are operating in compliance with the proposed emission rate. Air Quality Condition of Certification **AQ-10** currently requires source testing for PM10 every three years. Staff is recommending the modification of Air Quality Condition of Certification **AQ-10** in order to increase the PM10 compliance testing to every 18 months. The proposed

language would give the facility the option to reduce the testing frequency to every three years if all tests conducted over a three year period indicate compliance with the lower PM10 emission rate of 1.67 lb/hour. The condition language would continue to allow for alternative testing methods to be used if approved by SCAQMD, U.S.EPA and ARB.

Air Quality Condition of Certification **AQ-1** limits emissions of VOCs, PM10, and SOx from each turbine on a pound per month basis. These monthly emission limits are calculated using the fuel usage and emission factors listed in Air Quality Condition of Certification **AQ-1**. When the project was licensed, annual emission limitations were not included in **AQ-1** because the maximum annual emissions calculated were assumed equivalent to the monthly emissions multiplied by 12. The request to increase the monthly emission limits was accompanied by a request to SCAQMD to limit the annual emissions for the facility. Basically, the annual emissions proposed will no longer be based off of the monthly emissions, but will have additional constraints aimed to have the annual potential emissions more accurately reflect the actual usage of the turbines. Because additional constraints were used in calculating the potential emission increase for the facility, new language incorporating the additional proposed annual limitations is being proposed for Air Quality Conditions of Certification **AQ-1** and **AQ-2**. For Air Quality Condition of Certification **AQ-1**, additional annual emission limits would be specified for VOC, PM10 and SOx, the language would clarify the emission factors listed are inclusive of startup and shutdown operations, and new emission factors for maintenance operations would be added. The language would also clarify an annual timeframe and specify natural gas records would be required to be retained. In addition, Energy Commission staff is proposing to add language to Air Quality Condition of Certification **AQ-2**, to clarify the mass emission concentration limits, increase the annual turbine startup limits, add the annual maintenance hours of operation, add maintenance hourly emission limits, and clarify what constitutes shutdown and maintenance.

The facility operates a 1,141 brake horsepower (BHP) emergency diesel-fired engine which serves as a black start engine. The black start engine is only permitted to operate during an emergency when grid power is unavailable to start the turbine's electric generators and during maintenance and performance testing. SCAQMD rules and regulations limit emergency engines to no more than 200 emergency operating hours per year with no more than 50 hours for maintenance and performance testing. SCPPA is proposing to reduce the number of allowable operating hours of the black start engine to 50 annually, including emergency operations and maintenance and performance testing. Lowering the allowable annual operating time would result in lower annual emissions from the black start engine and lower mitigation requirements. The purpose of the engine is to bring the plant back on line when grid power is unavailable to start the turbine's electric generators. Therefore the operation of the black start engine for emergency purposes is not expected to exceed 50 hours per year. The engine would still be required to operate for maintenance purposes. Air Quality Condition of Certification **AQ-20** currently limits maintenance and performance testing to 50 hour per year. Energy Commission staff reviewed the engine usage logs and maintenance and performance is well below the allowable 50 hours. Maintenance and performance testing generally consists of monthly operation typically for a half hour, a brief annual maintenance and an occasional trouble shooting operation. The most reported usage in a month since commissioning has been just over 2 hours. Therefore, engine operation

including maintenance and testing are expected to fall well below the proposed 50 hours per year. Staff recommends changing the language in Air Quality Condition of Certification **AQ-20** to limit the black start engine to 50 hours of emergency operation per year.

The SCAQMD is proposing additional changes to the black start engine permit conditions for CPP. SCAQMD is proposing to clarify the language in their condition E193.2, corresponding to Air Quality Condition of Certification **AQ-22**, that the operation of the engine is for emergency use in the event of a loss of grid power or up to 30 minutes of operation prior to a rotating outage. The condition currently uses language referring to the operation of the engine beyond 50 hours per year. Since the SCPPA is proposing the engine operation be limited to 50 hours per year including maintenance and performance testing, language referring to operation beyond 50 hours would become obsolete. In addition, SCAQMD is proposing to modify language in their condition F14.1 and the addition of new condition F14.2, both corresponding to Air Quality Condition of Certification **AQ-31**. The changes clarify that the diesel fuel restrictions are applicable to the purchase of the diesel fuel and fuel oil sulfur compounds and are not permitted to exceed of 0.05 percent by weight. Proposed Air Quality Condition of Certification **AQ-32** restricts the facility to use diesel fuel with a sulfur content of no greater than 15 ppm by weight. Finally, two new conditions of certification relevant to the black start engine are being proposed. Both proposed Air Quality Conditions of Certification **AQ-33** and **AQ-34** pertain to the diesel particulate filter. Air Quality Condition of Certification **AQ-33** specifies procedures for diesel particulate filter cleaning. The condition prohibits non-emergency operation of the engine when the diesel particulate filter is removed for cleaning, limits the amount of time the filter can be removed, and requires records documenting when the filter media is removed and re-installed. Air Quality Condition of Certification **AQ-34** ensures that the engine and diesel particulate filter are operated and maintained according to the manufacturer's instructions or procedures. Energy Commission Staff recommends modifying the language in Air Quality Conditions of Certification **AQ-22**, and **AQ-31,** and adding Air Quality Conditions of Certification **AQ-32**, **AQ-33,** and **AQ-34** to implement these requirements.

In addition to the changes to the Air Quality Conditions of Certification discussed above, Energy Commission staff is proposing additional minor changes to the conditions of certification language. Energy Commission staff is proposing to delete language pertaining to the commissioning period, and any other language that is no longer relevant. This includes the complete deletion of Air Quality Conditions of Certification **AQ-3**, **AQ-8**, and **AQ-15**, partial language deletion in Air Quality Conditions of Certification **AQ-1** and **AQ-2,** and updating language in Air Quality Conditions of Certification **AQ-14** and **AQ-24**. Energy Commission staff is proposing to clarify the NH3 emission limit language in Condition of Certification **AQ-16**. Additionally Energy Commission staff is proposing to update the SCAQMD rule references in Air Quality Conditions of Certification **AQ-4**, **AQ-11**, **AQ-12**, **AQ-23** and **AQ-26,** as necessary to reflect the currently applicable rule or regulation. Finally, Energy Commission staff is proposing to update the units for the ammonia injection rate to pounds per hour for consistency with SCAQMD requirements in Air Quality Condition of Certification **AQ-17**.

PROJECT EMISSION PROFILE CHANGES

The proposed changes to CPP operation would result in the potential increase of emissions of criteria pollutants and greenhouse gases. In order to qualify as a flexible resource, CPP would have to be licensed to operate according to the FRAC-MOO criteria. However the actual operations of the facility may not necessarily change. Therefore, the actual emissions from the facility may not increase to the potential emissions summarized below in **Air Quality Table 3**.

Air Quality Table 3 includes the facility emissions limits determined at the time CPP was licensed and the currently proposed emission limits. The facility emissions include emissions from the four turbines, emergency black start engine and the cooling towers. Emissions from the cooling towers are not included in the SCAQMD facility totals because per SCAQMD rules, the cooling towers are exempt from permitting. Energy Commission facility emission totals in **Air Quality Table 3** include the cooling tower emissions because the cooling towers are an integral part of the project and not exempt from the California Environmental Quality Act (CEQA).

The original (calculated during the licensing process) annual facility emissions for NOx, CO, VOC PM10 and SOx from the turbines were calculated based off of each turbine operating for 1080 hours, with 240 startups and 240 shutdowns. The annual SOx facility emissions were based on a natural gas sulfur content of 0.25 grains per 100 standard cubic feet (gr/100 scf). For determining the proposed emissions, two turbine operating scenarios were examined. The first scenario is 2,615 total hours of operation per turbine consisting of 2,200 normal hours of operation, 540 startups, 540 shutdowns and 10 hours of maintenance operation. The second scenario proposed is 2,958 hours of operation, consisting of 2,674 normal hours of operation, 365 startups, 365 shutdowns, and 10 hours of maintenance operations. The two scenarios selected have equivalent NOx emissions but different CO, VOC, PM10 and SOx emissions. The highest emission result corresponding to each scenario was selected for the operation of the turbines emission contribution. The emission factors used to calculate the emissions from the turbines were the same as the original evaluation except an updated emission factor is used for PM10 and the startup emission factor for CO reflects the value that was approved by the Energy Commission on September 17, 2012.

Air Quality Table 3 includes emissions from the black start engine. The original annual emission limits for the black start engine were calculated based off of 200 hours of operation. The 2015 annual emissions limits for the black start engine were calculated based off of the limit of 50 hours proposed in Air Quality Condition of Certification **AQ-20**. The emission factors used to calculate the 2015 annual emissions from the black start engine remain unchanged from the original evaluation.

Facility emission totals include emissions from a four-cell chiller cooling tower. Emissions from the cooling towers are not included in the SCAQMD facility totals because per SCAQMD rules the cooling towers are exempt from permitting. Energy Commission facility emission totals in **Air Quality Table 3** include the cooling tower emissions because the cooling towers are an integral part of the project. The majority of the emissions from cooling

towers are water vapor. Small amounts of liquid water can generate particulate matter from the dissolved solids in the circulating water. Drift eliminators are utilized to limit the formation of drift which can lead to particulate emissions. Condition of Certification **AQ-SC9** limits the daily PM10 emissions to 0.96 lbs per day from all four cooling tower cells combined. This assumes an hourly emission rate of 0.036 lbs per hour and 24 hours of operation. The annual PM10 emissions from the cooling tower are calculated using the hourly PM10 emission factor and the annual hours of operation. The original PM10 emissions from the cooling towers were based on 4,320 normal operator hours per year. The revised PM10 emissions will be based off of the second scenario normal operating hours of 2,764 per turbine or 11,056 total normal operating hours and the same emission factor of 0.036 lbs per hour.

Air Quality Table 3
Canyon Power Plant Annual Emissions (tons per year)

Source	NOx	CO	VOC	PM10/2.5	SOx
2010 Commission Decision [a,b,c]					
Normal Operation four CTGs	13.77	11.42	3.10	7.19	0.82
Black Start Engine	1.21	0.65	0.005	0.005	0.001
Cooling Towers				0.078	
Total	**14.98.**	**12.08**	**3.10**	**7.27**	**0.82**
2015 Proposed Revisions [c,d]					
Four CTGs[c]	30.03	32.24	7.22	9.64	1.94
Black Start Engine	0.30	0.16	0.001	0.001	NG
Cooling Towers				0.193	
Total Proposed	**30.34**	**32.40**	**7.22**	**9.83**	**1.94**
Increase	**15.36**	**20.32**	**4.12**	**2.45**	**1.12**
Percent Increase from the 2010 Commission Decision	**103%**	**168%**	**133%**	**35%**	**137%**

[a] Source: SCAQMD 2009a.
[b] Source: CEC 2009.
[c] Source: SCAQMD 2014.
[d] Source: Energy Commission staff calculation
NG = negligible.

The proposed amendment would also increase emissions of greenhouse gases (GHGs). In May 2010, EPA issued the Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule establishing thresholds for GHG emissions. The regulation includes criteria for two phase-in steps with a commitment to develop a third step if necessary. Step 1 affected existing facilities that were already subject to Prevention of Significant Deterioration (PSD) requirements and modifications that increased CO2e emissions over 75,000 tons per year. Step 2 affected new facilities with proposed CO2e emissions over 100,000 tons per year and modifications at existing facilities with increases in CO2e emissions over 75,000

tons per year. However, on June, 23, 2014, the U.S. Supreme Court issued a decision regarding the application of stationary source permitting requirements to GHGs. The decision determined that GHGs could not be considered as an air pollutant for determining if a source is a major source requiring a PSD or Title V permit. The decision clarified that PSD permits could still be required based on emissions of conventional pollutants and GHG emissions could be limited in these circumstances based on the application of BACT.

Prior to the U.S. Supreme Court's decision, the GHGs would have been subject to PSD review under Step 2 applicability. On July 24, 2014, the EPA issued a memo regarding the U.S. Supreme Court's decisions. For facilities qualifying under Step 2, the EPA will no longer require PSD or Title V permits per their understanding of the U.S. Supreme Court's decision. Specifically, the EPA will no longer apply or enforce federal regulatory provisions or EPA-approved PSD State Implementation Plan provisions that require a stationary source to obtain a PSD permit based on Step 2 applicability. SCAQMD Rule 1714, Prevention of Significant Deterioration for Greenhouse Gases, became effective January, 9 2013, giving the SCAQMD permitting authority for greenhouse gas PSD permits. For consistency with the U.S. Supreme Court's decision, the SCAQMD will not be issuing a PSD permit for greenhouse gases for this project. A GHG BACT analysis was discussed in the SCAQMD evaluation. The BACT analysis concluded there are no feasible CO_2 control technologies available for the peaking facility.

SB 1368,[1] enacted in 2006, and regulations adopted by the Energy Commission and the CPUC pursuant to that bill, prohibits California utilities from entering into long-term commitments with any base load facilities that exceed the Emission Performance Standard (EPS) of 0.5 metric tonnes CO_2 per megawatt-hour[2] (1,100 pounds CO_2/MWh). If a project, instate or out of state, plans to sell base load electricity to California utilities, those utilities will have to demonstrate that the project meets the EPS. Base load units are defined as units that are expected to operate at a capacity factor higher than 60 percent. Compliance with the EPS is determined by dividing the annual average carbon dioxide emissions by the annual average net electricity production in MWh. The annual capacity factor calculated for CPP is significantly less than 60% and therefore the EPS is not applicable to the facility.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) MITIGATION

The California Energy Commission requires mitigation for emissions of pollutants and/or their precursors that are in non-attainment with state and federal ambient air quality standards or may cause an exceedance of any ambient air quality standard. As documented in **Air Quality Table 2**, the SCAQMD is non-attainment for O_3, PM10, and PM2.5. Precursors of O_3, PM10, and PM2.5 include VOC, SOx, and NOx. Therefore, the Energy Commission requires the mitigation of PM10, PM2.5, SOx, NOx, and VOC emissions in areas designated as non-attainment for O_3, PM10, and PM2.5 standards.

An impact analysis was required by the SCAQMD to determine if the change in operations would result in a violation of applicable air quality standards. Per SCAQMD requirements,

[1] Public Utilities Code § 8340 et seq.

[2] The Emission Performance Standard only applies to carbon dioxide and does not include emissions of other greenhouse gases converted to carbon dioxide equivalent.

compliance demonstrations are required for attainment pollutants, NO_2, CO, SO_2, PM10 (federal 24-hour) and non-attainment pollutants, PM10 (state 24-hour and annual). The modeling for attainment pollutants needs to demonstrate that the project impact plus the background concentration would not cause an exceedance to the most stringent AAQS. The modeling for non-attainment pollutants needs to demonstrate the project impacts would not cause an exceedance of the SCAQMD's CEQA significant thresholds.

The modeling performed by SCPPA used the U.S.EPA approved American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee Model (AERMOD). Meteorological data was obtained from a SCAQMD monitoring station located in Anaheim and background data for NOx, CO, PM10 and PM2.5 was obtained from the Central Orange County Station also located in Anaheim. The background concentration of SO_2 was taken from the North Coastal Orange County Station because it was the closest station that measures SO_2 concentration. The modeling was performed for reasonable worst-case emission scenarios for the turbines corresponding to maintenance and normal operation. The original modeling was based on startup rates. Uncontrolled maintenance emission rates are noted to be higher than the startup rates. Per SCAQMD requirements, the modeling analysis was performed for each turbine on an individual basis and did not include the black start engine or cooling tower. However, SCPPA provided modeling data to the Energy Commission which included cumulative impacts from all the turbines and the black start engine. The data provided by SCPPA can be used to demonstrate CO emissions from the project would not result in a violation to any applicable air quality standard. The results are summarized in **Air Quality Table 4**.

Air Quality Table 4
Modeled Emission Rates (ug/m3)

Scenario	Averaging Time	Modeled Impact	Background	Total Impact	Limiting Standard	% of Standard
CO	1 hour	154.51	3,436.81	3,591	23,000	16
	8 hour	75.71	2,634.89	2,711	10,000	27

Source: SCAQMD 2014.
Source: SCPPA 2014a.

Since CO is an attainment pollutant and is not a precursor to any nonattinament pollutants, offsets for CO should not be required. As stated above, Energy Commission staff will recommend that the Energy Commission required full mitigation PM10/2.5, SOx, NOx, and VOC emissions in areas designated as non-attainment for O_3, and PM10 standards.

The original Commission Decision required the project to offset specified quantities of NOx, VOC, PM10 and SOx. For purposes of CEQA, the Energy Commission requires total facility emissions to be offset on at least a 1.0 to 1.0 offset ratio basis. However, offset ratios required by the SCAQMD vary depending on the pollutant. The project owner opted to mitigate NOx emission through RECLAIM. SCAQMD is requiring RECLAIM Trading Credits (RTCs) for both the turbine and black start engine since they are both sources of NOx. The turbines each would have the potential to emit 15,017 pounds per year of NOx and the black start engine would have the potential to emit 603 pounds of NOx per year. Together they total 60,671 pounds of NOx per year or 30.34 tons as listed in **Air Quality Table 3**.

SCCQAMD requires NOx RTCs on a pound per year basis. Air Quality Conditions of Certification **AQ-14** and **AQ-24** specify the RTC requirements for CPP. Energy Commission staff is proposing to modify Air Quality Condition of Certification **AQ-14** to reflect the new RTC requirements of 15,017 pounds per year for each turbine, and Air Quality Condition of Certification **AQ-24** to reflect the new RTC requirement of 603 pounds per year for the black start engine. In addition to reflecting the new RTC requirements, Energy Commission staff is proposing to update the language for Air Quality Conditions of Certification **AQ-14** and **AQ-24**.

At the time CPP was licensed, SCAQMD required total facility emissions, including the black start engine but not the cooling tower, based on a 30 day average for VOC, PM10 and SOx and to offset these emissions by a 1.2 to 1.0 ratio. Emission Reduction Credits (ERCs) were surrendered per Air Quality Condition of Certification **AQ-SC7**, to mitigate VOC, PM10 and SOx. **Air Quality Table 5** includes Energy Commission staff recommended mitigation of VOC, PM10, CO and SOx emissions for the pending amendment, the original mitigation surrendered, the additional mitigation recommended by Energy Commission staff and the additional mitigation surrendered per SCAQMD analysis of the proposed amendment. The Energy Commission staff recommendation for proposed mitigation includes the total calculated facility emissions listed in **Air Quality Table 3**. The original mitigation surrendered includes credits originally required by SCAQMD. These ERCS have already been surrendered per Air Quality Condition of Certification **AQ-SC7.** The additional Energy Commission mitigation recommended by staff is the difference between the total ERCs required and the original ERCs already surrendered. Additional mitigation surrendered per SCAQD requirements lists the additional ERCs SCAQMD is requiring per their analysis of the proposed changes. The requirements are based on a 1.2 to 1.0 offset factor of the difference between the proposed 30 day average of just the turbine operation and the 30 day average originally calculated including the black start engine emissions.

Air Quality Table 5
Canyon Power Plant ERC Requirements (tons/year)

Source	VOC	PM10	CO	SOx
Commission Staff Proposed Mitigation Total Project Including Amendment[a,b]	7.22	9.83	None	1.94
Original Mitigation Surrendered[b]	3.83	8.76	None	0.91
Additional Mitigation Surrendered for Amendment per SCAQMD Requirements[b]	7.30	7.12	None	None
Total Mitigation Surrendered per SCAQMD Requirements[b]	10.83	15.88	None	None
Additional Commission Mitigation Recommended for Amendment[a]	None	None	None	None

[a]Source: Energy Commission staff calculation
[b]Source: SCAQMD 2014.

As demonstrated in **Air Quality Table 5**, the mitigation requirements per SCAQMD, are higher for VOC and PM10. Additional mitigation for SOx was not required by SCAQMD because the potential to emit for SOx would be less than 4 tons per year and SCAQMD Rule

1304 (d)(2)(A) does not require ERCs for changes less than 4 tons per year. However, Energy Commission staff still recommends the additional SOx emissions be mitigated. Interpollutant offsets are allowed by regulatory agencies on a case-by-case basis. As demonstrated in **Air Quality Table 5**, SCAQMD is recommending 7.12 tons per year of PM10, or 6.05 tons per year more than Energy Commission staff. The additional 6.05 tons of PM10, which is a nonattainment pollutant, would exceed the additional emissions of 1.03 tons per year of SOx. SO_2 is a subset of SOx and SCAQMD is considered in attainment for SO_2. As demonstrated in **Air Quality Table 6**, the modeled impact including all sources within the project change would not cause an exceedance to any SO_2 AAQS. Therefore, Staff recommends crediting the SOx offset requirements with the excess PM10 offsets required by SCAQMD and already surrendered.

Air Quality Table 6
Modeled Emission Rates (ug/m3)

Scenario	Averaging Time	Modeled Impact	Background	Total Impact	Limiting Standard	% of Standard
SO_2	1 hour	0.27	24.89	25.16	655	4
	1-hour	0.25	12.58	12.83	196	7
	3 hour	0.25	156.94	157.19	1,300	12
	24-hour	0.09	5.50	5.59	105	5

Source: SCAQMD 2014.
Source: SCPPA 2014a.

In order to ensure compliance with CEQA mitigation requirements, .Energy Commission staff is proposing to revise Air Quality Condition of Certification **AQ-SC7** to reflect the revised mitigation total listed in **Air Quality Table 5**. Staff is proposing to update the quantities of offsets required as well as the language used in the condition and verification for consistency with other projects. Updating Revising Air Quality Condition of Certification **AQ-SC7** would ensure compliance with mitigation requirements under CEQA. Using excess PM10 ERCs for SOx emissions, mitigates the SOx emission increases. Therefore the additional mitigation already surrendered by SCPPA fully mitigates the requested change in CPP operations.

CONCLUSIONS AND RECOMMENDATIONS:

Energy Commission staff recommends approval of the requested changes to the Air Quality Conditions of Certification for CPP listed in SCPPA 2014. Energy Commission staff is recommending additional changes to the Air Quality Conditions of Certification needed to ensure CPP would continue to operate in compliance with applicable LORS pending approval of the requested changes in operation. Specifically, Energy Commission staff recommends the modification of Air Quality Conditions of Certification, **AQ-1**, **AQ-2**, **AQ-10**, **AQ-16, AQ-17**, **AQ-20**, **AQ-22**, and **AQ-31.** In order to ensure compliance with mitigation requirements, the Energy Commission staff recommends revising Air Quality Conditions of Certification **AQ-SC7**, **AQ-14**, and **AQ-24** to include additional offset requirements for the proposed emission increases. Energy Commission staff is also proposing to update rule and regulation citations in Air Quality Conditions of Certification, **AQ-4**, **AQ-11**, **AQ-12**, **AQ-23** and **AQ-26**. Energy Commission staff is also proposing to delete Air Quality Conditions of

Certification **AQ-3**, **AQ-8**, and **AQ-15** because the requirements are no longer applicable to CPP. Energy Commission staff is proposing to add Air Quality Conditions of Certification **AQ-32**, **AQ-33** and **AQ-34** to ensure compliance with applicable LORS. The requested changes will conform with the applicable LORS related to air quality and will not result in significant air quality impacts. The requested changes have already been analyzed by SCAQMD staff.

THE SCAQMD has a unique system of structuring and numbering their permit conditions. In order for the reader to avoid confusion between the SCAQMD numbering and Energy Commission numbering, **Air Quality Table 7** cross references the conditions in the SCAQMD permit and the conditions in the license as proposed.

Air Quality Table 7
SCAQMD Permit Conditions with Corresponding Commission Conditions of Certification

SCAQMD Permit Conditions	**CEC Condition of Certification**	**Condition Description**
Gas Turbine Generators		
A63.1	AQ-1	Monthly and annual contaminant emission limit (PM10, SOx & VOC)
A99.1	AQ-2	Relief from 2.5 ppm NOx limit during startup, shut down, and maintenance periods. Startup and shutdown time limits. Limit of number of startups and maintenance operations per year.
A99.2	AQ-2	Relief from 4.0 ppm CO limit during startup, shut down, and maintenance periods. Startup and shutdown time limits. Limit of number of startups and maintenance operations per year.
A99.3	AQ-2	Relief from 2.0 ppm ROG limit during startup, shut down, and maintenance periods. Startup and shutdown time limits. Limit of number of startups and maintenance operations per year.
A99.4	AQ-3	Deleted
A195.1	AQ-4	NOx emission limit of 2.5 ppm @ 15% O_2 averaged over 1-hour.
A195.2	AQ-4	CO emission limit of 4.0 ppm @ 15% O_2 averaged over 1-hour.
A195.3	AQ-4	ROG emission limit of 2.0 ppm @ 15% O_2 averaged over 1-hour.

SCAQMD Permit Conditions	CEC Condition of Certification	Condition Description
A327.1	AQ-5	Relief from emission limits, under Rule 475; project may violate either the mass emission limit or concentration emission limit, but not both at the same time.
B61.2	AQ-6	H_2S concentration limit for natural gas.
D12.1	AQ-7	Requires the installation of a fuel flow meter.
D29.1	AQ-8	Deleted
D29.2	AQ-9	Requires source tests for ammonia (NH_3); quarterly for the first year and annually thereafter.
D29.3	AQ-10	Requires source tests for specific pollutants (SOx, VOC, and PM/PM10) once every three years.
D82.1	AQ-12	Requires the installation of CEMS for CO emissions.
D82.2	AQ-12	Requires the installation of CEMS for NOx emissions.
E193.1	AQ-SC10	Requires that the turbines be operated according to the mitigation measures stipulated in the Commission Decision.
H23.1	AQ-13	Establishes the applicability of 40 CFR60 Subpart KKKK for the project contaminant NOx and SOx.
I298.1, I298.2, I298.3, I298.4	AQ-14	Prohibited from operation unless the operator hold sufficient RTCs for the CTGs.
K40.1	AQ-11	Source test reporting requirements.
K67.1	AQ-15	Deleted.
SCR/CO Catalyst		
A195.4	AQ-16	Establishes the 5 ppm ammonia slip limit.
D12.2	AQ-17	Requires a flow meter for the ammonia injection.
D12.3	AQ-18	Requires a temperature gauge at the SCR inlet.

SCAQMD Permit Conditions	CEC Condition of Certification	Condition Description
D12.4	AQ-19	Requires a pressure gauge to measure the differential pressure across the SCR grid.
E179.1	AQ-17, -18	Defines “continuously record” as recording once an hour based on the average of continuous monitoring for that hour.
E179.2	AQ-19	Defines “continuously record” as recording once a month based on the average of continuous monitoring for that month.
E193.1	AQ-SC10	Requires that the SCR/CO catalyst be operated according to the mitigation measures stipulated in the Commission Decision.
Black Start Engine		
C1.1	AQ-20	Limits the operating hours to no more than 50 hours per year.
D12.5	AQ-21	Requires the installation of a non-resettable time meter.
E193.1	AQ-SC10	Requires that the black start engine be operated according to the mitigation measures stipulated in the Commission Decision.
E193.2	AQ-22	Limits operation of the black start engine and defines emergency use.
E193.3	AQ-23	Requires control system of black start engine.
I298.5	AQ-24	Prohibits CPP from operation unless the operator hold sufficient RTCs for the black start engine.
K67.2	AQ-25	Requires record keeping in the manner approved by the District Executive Officer.
K67.3	AQ-26	Requires record keeping for the diesel particulate filter.
B61.3	AQ-32	Establishes a sulfur concentration

SCAQMD Permit Conditions	CEC Condition of Certification	Condition Description
		requirement for diesel fuel.
E193.4	AQ-33	Establishes requirements for cleaning the diesel particulate filter.
E193.5	AQ-34	Establishes requirements for engine and diesel particulate filter maintenance.
Ammonia Storage Tank		
C157.1	AQ-27	Requires the installation of a pressure relief valve.
E144.1	AQ-28	Requires venting of the storage tank during filling only to the vessel from which it is being filled.
E193.1	See the Hazardous Materials Section	Requires that the ammonia storage tank be operated according to the mitigation measures stipulated in the Commission Decision.
K67.4	AQ-29	Required record keeping for the ammonia storage tank.
Oil Water Separator		
E193.1	See the Soil and Water Section	Requires that the oil water separator be operated according to the mitigation measures stipulated in the Commission Decision.
Facility Conditions		
F9.1	AQ-30	Exhaust opacity limits.
F14.1, F14.2	AQ-31	Limits the sulfur content in the diesel fuel no more than 15 ppm.
Rule 219 Exempt Equipment Conditions		
K67.5	NA	Required record keeping of thinners and no-thinners architectural applications (paint).

PROPOSED AND AMENDED CONDITIONS OF CERTIFICATION

Staff recommends the modification of **Air Quality Conditions of Certification AQ-SC7**, **AQ-1**, **AQ-2**, **AQ-4, AQ-10**, **AQ-11, AQ-12, AQ-14**, **AQ-16, AQ-17**, **AQ-20**, **AQ-22**, **AQ-23, AQ-24**, **AQ-26**, and **AQ-31,** the addition of Air Quality Conditions of Certification **AQ-32**, **AQ-33,**

and **AQ-34**, and the deletion of **Air Quality Conditions of Certification AQ-3**, **AQ-8**, and **AQ-15**. **Bold underline** is used to indicate new language. ~~Strikethrough~~ is used to indicate deleted language. For convenience, a clean version of all the conditions reflecting the proposed changes that would become applicable to CPP follows the strikeout underline text in Appendix A.

AQ-SC7 ~~The project owner shall surrender the ERCs for SOx, VOC and PM10 as listed in the table below or a modified list, as allowed by this condition. An additional pound per day of VOC and SO_2 ERCs shall be identified prior to initiation of construction. If additional or revised ERCs are submitted, the project owner shall submit an updated table including the additional or revised ERCs to the CPM. The project owner shall request CPM approval for any substitutions, modifications, or additions of credits listed.~~

~~**Certificate Number(s)**~~	~~**Amount (lbs/day)**~~	~~**Pollutant**~~
~~AQ008840~~	~~10~~	~~VOC~~
~~AQ008842~~	~~10~~	~~VOC~~
~~AQ008862~~	~~4~~	~~SO_2~~
~~AQ008907, -09, -11, -13,-15, -17, -19, -21~~	~~1~~	~~PM10~~
~~AQ008864, -66, -68, -70, -72, -74, -76, -78~~	~~2~~	~~PM10~~
~~AQ008844~~	~~4~~	~~PM10~~
~~AQ008846~~	~~4~~	~~PM10~~
~~AQ009059, -61, -63, -65, -67, -69, -71, -73~~	~~6~~	~~PM10~~
~~AQ008891, -93, -95, -97, -99, -01, -03, -05~~	~~7~~	~~PM10~~
~~AQ009027, -29, -31, -33, -35, -37, -39, -41~~	~~2~~	~~PM10~~
~~AQ009043, -45, -47, -49, -51, -53, -55, -57~~	~~19~~	~~PM10~~
~~AQ009325, -27, -29, -31, -33, -35, -37,-39~~	~~2~~	~~PM10~~
~~AQ008838~~	~~1~~	~~PM10~~

~~The CPM, in consultation with the District, may approve any such change to the ERC list provided that the project remains in compliance with all Conditions of Certification, and applicable laws, ordinances, regulations, and standards, the requested change(s) will not cause the project to result in a significant environmental impact, and the SCAQMD confirms that each requested change is consistent with applicable federal and state laws and regulations.~~

The project owner shall provide emission reductions in the form of offsets or emission reductions credits (ERCs) in the quantities of at least 7.22 tons per year (tpy) VOC, 9.83 tpy PM10, and 1.94 tpy SOx emissions. The project

owner shall demonstrate that the reductions are provided in the form required by the South Coast Air Quality Management District.

Verification: ~~The project owner shall provide the ERC certificate information for the additional pound per day of VOC and SO_2 ERCs as required by the District and this condition at least 30 days prior to initiating construction. This information will provide the following information for each of the additional ERC certificates: 1) the location/address of the reduction; 2) the date of reduction; and 3) the method of reduction.~~

~~The project owner shall submit to the CPM the NSR Ledger Account from the District, showing that the project's offset requirements have been met, 30 days prior to turbine first fire for the traditional ERCs. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and commission docket. The CPM shall maintain an updated list of approved ERCs for the project.~~

The project owner shall submit to the CPM records showing that the project's offset requirements have been met. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and the Energy Commission docket. The project owner and CPM shall maintain an updated list of approved ERCs for the project.

Gas Turbines (D1, D7, D13 and D19)

(note: the following conditions are per turbine unless otherwise specified)

The following conditions are applicable to the General Electric LM6000PC Sprint, Simple Cycle Natural Gas Turbines.

AQ-1 The project owner shall limit emission from this equipment as follows:

CONTAMINANT	EMISSION LIMIT
VOC	Less than or equal to ~~129~~ **412** lbs IN ANY CALENDAR MONTH
PM10	Less than or equal to ~~299~~ **540** lbs IN ANY CALENDAR MONTH
SOx	Less than or equal to ~~34~~ **108** lbs IN ANY CALENDAR MONTH
VOC	**Less than or equal to 3,608 lbs IN ANY YEAR**
PM10	**Less than or equal to 4,822 lbs IN ANY YEAR**
SOx	**Less than or equal to 971 lbs IN ANY YEAR**

For the purposes of this condition, the above emission limits shall be based on the emissions from a single turbine.

~~The turbine shall not commence with normal operation until the commissioning process has been completed. Normal operation commences when the turbine is able to supply electrical energy to the power grid as required under contract with the relevant entities. The District shall be notified in writing once the commissioning process for each turbine is completed.~~

~~Normal operation may commence in the same calendar month as the completion of the commissioning process provided the turbine is in compliance with the above emission limits.~~

The project owner shall calculate the monthly emissions for VOC, PM10, and SOx using the equation below.

Monthly Emissions, lbs/month = (Monthly fuel usage in mmscf/month) * (Emission factors indicated below)

~~For commissioning, the emission factors shall be as follows: VOC, 3.76 lbs/mmcf; PM10, 6.03 lbs/mmcf; and SOx, 0.68 lbs/mmcf.~~

For normal operation, **including startups and shutdowns,** the emission factors shall be as follows: VOC, 2.59 lbs/mmcf; PM10, ~~6.03~~ **3.40** lbs/mmcf; and SOx, 0.68 lbs/mmcf.

For maintenance operations, the emission factors shall be as follows: VOC, 2.64 lbs/mmcf; PM10, 3.52 lbs/mmcf; and SOx, 0.68 lbs/mmcf.

~~For a month during which both commissioning and normal operation take place, the monthly emissions shall be the total of the commissioning emissions and the normal operation emissions.~~

For the purposes of this condition, the annual emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12-month period beginning on the first day of each calendar month.

The project owner shall maintain records in a manner approved by the District to demonstrate compliance with this condition and the records shall be made available to District personnel upon request. **The records shall include, but not be limited to, natural gas usage in a calendar month.**

[RULE 1303(b)(2)–Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit all emission calculations, fuel use, CEM records and a summary demonstrating compliance ~~of~~ **with** all emission limits stated in this Condition to the CPM in the Quarterly Operation Report. (**AQ-SC10**).

AQ-2 **Mass emission concentrations from the turbines after abatement shall not exceed 2.5 ppmv for oxides of nitrogen (NOx), 4.0 ppmv for carbon monoxide (CO), and 2 ppmv for volatile organic compounds (VOC).** The 2.5 ppm NOx, 4.0 ppm CO, and 2.0 ppm ROG emission limits shall not apply during turbine ~~commissioning~~, start-up, ~~and~~ shutdown ~~periods~~**, and maintenance** periods.

~~Commissioning shall not exceed 156 hours total.~~ Each start-up shall not exceed 35 minutes. Each shutdown shall not exceed 10 minutes. ~~The~~ **Each** turbine shall be limited to a maximum of ~~240~~ **540** start-ups per year **and a maximum of 10 hours of maintenance operations per year**.

NOx, CO, and ROG emissions for an hour that includes a start-up shall not exceed 14.27 lbs for NOx, 11.6 lbs for CO, and 1.29 lbs for ROG and for the hour that includes a shutdown 4.07 lbs for NOx, 4.15 for CO, and 1.27 lbs for ROG. For the purpose of defining an hour that includes a start-up, the period begins when natural gas is first introduced into the turbine and ends after 60 minutes. **For the purpose of defining an hour that includes a shutdown, the period begins 60 minutes prior to the minute that natural gas stops flowing into the turbine.**

For an hour that includes a start-up and shutdown, the start-up emissions limit is applicable. The worst case includes a full start-up sequence of 35 minutes, followed immediately by a turbine trip, a five minute purge period during which no fuel is burned, and the first 20 minutes of restart sequence.

NOx, CO, and ROG emissions for maintenance operations shall not exceed 44.0 lbs for NOx, 19.4 lbs for CO and 1.25 lbs for ROG, in any hour.

The project owner shall maintain records in a manner approved by the District to demonstrate compliance with this condition and the records shall be made available to District personnel upon request.

For the purposes of this condition, start-up shall be defined as the start-up process to bring the turbine to full successful operation.

For the purposes of this condition, shutdown shall be defined as a reduction in turbine load ending in a period of zero fuel flow.

For the purposes of this condition, maintenance shall be defined as the optimizing and rebalancing of the NH_3 grid or catalyst modules, and the retuning and testing of the turbine control systems.

[RULE 1703(a)(2) – PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005; RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6- 2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall provide start-up and shutdown occurrence and duration data as part as part of the Quarterly Operation Report (**AQ-SC10**). The project owner shall make the site available for inspection of the commissioning and start-up/shutdown records by representatives of the District, ARB and the Commission.

AQ-3 ~~The 98.16 lbs/mmcf NOx emission limit(s) shall only apply during turbine commissioning and the 11.53 lbs/mmcf NOx emission limit(s) shall only apply after~~

~~turbine commissioning during the interim reporting period to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.~~

~~[RULE 2012, 5-6-2005]~~

~~[Devices subject to this condition: D1, D7, D13, D19]~~ **Deleted**

~~**Verification**: The project owner shall provide start-up and shutdown occurrence and duration data as part as part of the Quarterly Operation Report (**AQ-SC10**). The project owner shall make the site available for inspection of the commissioning and start-up/shutdown records by representatives of the District, ARB and the Commission.~~

AQ-4 The 2.5 ppmv NOX emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry.

The 4.0 ppmv CO emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry.

The 2.0 ppmv ROG emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry.

[~~RULE 1703(a)(2) – PSD-BACT, 10-7-1988;~~ RULE 2005, ~~5-6-2005~~ **6-3-2011]**

[~~RULE 1703(a)(2) – PSD-BACT, 10-7-1988~~ **RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit to the CPM emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC10**).

AQ-8 ~~The project owner shall conduct source test(s) for the pollutant(s) identified below.~~

~~**Pollutant**~~	~~**Method**~~	~~**Averaging Time**~~	~~**Test Location**~~
~~NOx~~	~~District Method 100.1~~	~~1 hour~~	~~Outlet of SCR~~
~~CO~~	~~District Method 100.1~~	~~1 hour~~	~~Outlet of SCR~~
~~SOx~~	~~AQMD Laboratory Method 307-91~~	~~N/A~~	~~Fuel Sample~~
~~VOC~~	~~District Method 25.3~~	~~1 hour~~	~~Outlet of SCR~~
~~PM10~~	~~District Method 5~~	~~4 hours~~	~~Outlet of SCR~~
~~Ammonia~~	~~District Method 207.1 and 5.3 or U.S.EPA Method 17~~	~~1 hour~~	~~Outlet of SCR~~

~~The test shall be conducted after AQMD approval of the source test protocol, but no later than 180 days after initial start-up. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.~~

~~The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.~~

~~The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (cfh), the flue gas flow rate, and the turbine generating output in MW.~~

~~The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent, with the exception of PM10 testing. For PM10, the test shall be conducted when this equipment is operating at a load of 100 percent.~~

~~For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per U.S.EPA Method TO-12 (with preconcentration) and temperature of canisters when extracting samples for analysis is not below 70 degrees F.~~

~~The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.~~

~~Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.~~

~~For the purpose of this condition, alternative test method may be allowed for each of the above pollutants upon concurrence of AQMD, U.S.EPA and ARB.~~

~~[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]~~

~~[Devices subject to this condition: D1, D7, D13, D19]~~ **Deleted**

~~**Verification**: The project owner shall submit the proposed protocol for the initial source tests 45 days prior to the proposed source test date to both the SCAQMD and CPM for approval. The project owner shall submit source test results no later than 60 days following the source test date to both the SCAQMD and CPM. The project owner shall notify the SCAQMD and CPM no later than 10 days prior to the proposed initial source test date and time.~~

AQ-10 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant	Method	~~Averaging~~ Sampling Time	Test Location
SOx	AQMD Laboratory Method 307-91	N/A	Fuel Sample
VOC	District Method 25.3	1 hour	Outlet of SCR
PM~~10~~	District Method 5**.1**	4 hours	Outlet of SCR

The PM emissions testing shall be conducted using District Method 5.1 as described in Section 3.3 of the Delta Air Quality Services, Inc. protocol, dated September 27, 2013 and approved by the SCAQMD on October 10, 2013. The testing shall consist of one run with a sampling time of four hours minimum for the run. The PM emissions results will be considered to be a surrogate for the PM10 emissions.

As source testing methods and techniques evolve, a new protocol may be submitted and evaluated by the AQMD for approval in accordance with the procedure described below.

For PM (surrogate for PM10), the tests shall be conducted at least once every 18 months in order to verify compliance with the emission rate of 1.67 lb/hr PM10 at maximum load during normal operations. If all tests conducted over a three-year period comply with the 1.67 lb/hr limit for PM10 the facility shall have the option of reducing the source test frequency to once every three years.

For SOx and VOC, ~~T~~**t**he test shall be conducted at least once every three years. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (cfh), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of

the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent, with the exception of **PM** ~~PM10~~ testing **(surrogate for PM10)**. For **PM** ~~PM10~~, the test shall be conducted when this equipment is operating at a load of 100 percent.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per U.S.EPA Method TO-12 (with preconcentration) and temperature of canisters when extracting samples for analysis is not below 70 degrees F.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

For the purposes of this condition, **an** alternative test method may be allowed for each of the above pollutants upon concurrence of AQMD, U.S.EPA, and ARB.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; ~~RULE 1703(a)(2)-PSD-BACT, 10-7-1988~~]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit the proposed protocol for the source tests 45 days prior to the proposed source test date to both the SCAQMD and CPM for approval. The project owner shall notify the SCAQMD and CPM no later than 10 days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the SCAQMD and CPM.

AQ-11 The project owner shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lbs/hr), and lbs/mmcf. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains/dscf.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (dscfm) and dry actual cubic feet per minute (dacfm).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the heating content of the fuel, the flue gas temperature, and the generator power output (MW) under which the test was conducted.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; ~~RULE 1703(a)(2)-PSD-BACT, 10-7-1988;~~ RULE 2005, 5-6-2005]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit source test results no later than 60 days following the source test date to both the SCAQMD and CPM. The project owner shall notify the SCAQMD and CPM no later than 10 days prior to the proposed source test date and time.

AQ-12 The project owner shall install and maintain a CEMS to measure the following parameters:

NOx concentration in ppmv and CO concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CO CEMS shall be installed and operating no later than 90 days after initial startup of the turbine, in accordance with an approved AQMD Rule 218 CEMS plan application. The project owner shall not install the CEMS prior to receiving initial approval from AQMD. Within two weeks of the turbine start-up, the project owner shall provide written notification to the District of the exact date of start-up.

The NOx CEMS shall be installed and operating no later than 90 days after initial start-up of the turbine and shall comply with the requirements of Rule 2012. During the interim period between the initial start-up and the provisional certification date of the CEMS, the project owner shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks of the turbine start-up date, the project owner shall provide written notification to the District of the exact date of start-up.

The CO CEMS shall be installed and operated to measure CO concentrations over a 15 minute averaging time period.

The NOx CEMS shall be installed and operating (for BACT purposes only) no later than 90 days after initial start-up of the turbine.

[~~RULE 1703(a)(2)-PSD-BACT, 10-7-1988;~~ **RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002;** RULE 218, 8-7-1981; RULE 218, 5-14-1999]

[~~RULE 1703(a)(2)-PSD-BACT, 10-7-1988;~~ RULE 2005, 5-6-2005; RULE 2012, 5-6-2005]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: Within 30 days of certification, the project owner shall notify the CPM of the completion of the certification process for the CEMS.

AQ-14 ~~This equipment shall not be operated unless the project owner demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the project owner demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.~~

~~To comply with this condition, the project owner shall prior to the 1st compliance year hold a minimum NOx RTCs of 9,677 lbs/yr. This condition shall apply during the 1st 12 months of operation, commencing with the initial operation of the gas turbine.~~

~~To comply with this condition, the project owner shall, prior to the beginning of all years subsequent to the 1st compliance year, hold a minimum of 6,886 lbs/yr of NOx RTCs for the operation of the gas turbine.~~

~~In accordance with Rule 2005(f), unused RTCs may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.~~

This equipment shall not be operated unless the facility holds 15,017 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from this initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 15,017 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the

initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

The condition shall apply to each turbine individually.

[RULE 2005, ~~5-6-2007~~**6-3-2011**]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall provide confirmation from the District 30 days prior to first fire that sufficient RTCs to satisfy the District's requirements for the first year of operation as provided in this condition have been obtained. The project owner shall submit evidence of sufficient RTCs to the CPM demonstrating compliance with this condition for each compliance year after the 1st compliance year, at least 15 days prior to the commencement of that compliance year.

~~**AQ-15** The project owner shall keep records in a manner approved by the District, for the following parameter(s) or item(s):~~

~~Natural gas fuel use during the commissioning period.~~

~~Natural gas fuel use after the commissioning period and prior to CEMS certification.~~

~~Natural gas fuel use after CEMS certification.~~

~~[RULE 2005, 5-6-2005]~~

~~[Devices subject to this condition: D1, D7, D13, D19]~~

~~**Verification**: The project owner shall submit all fuel usage records as part of the Quarterly Operation Report (**AQ-SC10**).~~

AQ-16 **NH_3 emissions will be limited to 5 ppmv**. The 5 ppmv NH_3 emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry basis. The project owner shall calculate and continuously record the NH_3 slip concentration using the following equation.

District Requirement

NH_3 (ppmv) = [a–b*c/1E6]*1E6/b; where

a = NH_3 injection rate (lbs/hr)/17(lbs/lbs-mol)

b = dry exhaust gas flow rate (scf/hr)/385.3 (scf/lbs-mol)

c = change in measured NOx across the SCR (ppmvd at 15 percent O_2)

The project owner shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months.

The NOx analyzer shall be installed and operated within 90 days of initial start-up.

The project owner shall use the above described method or another alternative method approved by the District's Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved reference method for the determination of ammonia.

[RULE 1303(a)(1) – BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: C4, C10, C16, C22]

Verification: The project owner shall include ammonia slip concentrations averaged on an hourly basis as part of the Quarterly Operation Report (**AQ-SC10**). The project owner shall submit all SCR inlet NOx analyzer calibration results to the CPM within 60 days of the calibration date. Exceedances of the ammonia limit shall be reported and chronic exceedances of the ammonia slip limit, defined as occurring more than 10 percent of the operation for any single HRSG exhaust stack, shall be identified by the project owner and confirmed by the CPM within 60 days of the submitted Quarterly Operation Report (**AQ-SC10**) that indicates chronic exceedances. If a chronic exceedance is identified and confirmed, the project owner shall work in conjunction with the CPM to develop a reasonable compliance plan to investigate and redress the chronic exceedance of the ammonia slip limit within 60 days of the above confirmation.

AQ-17 The project owner shall install and maintain a~~(n)~~ flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The project owner shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The calibration records shall be kept on site and made available to District personnel upon request.

The ammonia injection system shall be placed in full operation as soon as the minimum temperature at the outlet to the SCR reactor is reached. The minimum temperature is 540 degrees F.

The ammonia injection rate shall remain between ~~6.83 gal/hr and 16 gal/hr~~ **52.32 lb/hr and 122.57 lb/hr.**

Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

[RULE 1303(a)(1) – BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition: C4, C10, C16, C22]

Verification: The project owner shall submit to the CPM no less than 30 days after installation, a written statement by a California registered Professional Engineer stating that said engineer has reviewed the as-built-designs or inspected the identified equipment and certifies that the appropriate device has been installed and is functioning properly. The project owner shall submit annual calibration results within 30 days of their successful completion and shall make the records required under the condition available for inspection by representatives of the District, ARB, and the Commission.

Black Start Diesel Engine (D25)

AQ-20 The project owner shall limit the operating time to no more than ~~200~~ **50** hour(s) in any one year.

The ~~200~~ **50** hours in any one year shall include no more than 50 hours **in any one year** for maintenance and performance testing **and no more than 4.2 hours in any one month for maintenance and performance testing**.

~~The duration of each test shall not exceed 38 minutes in any one hour.~~

[RULE 1110.2, 2-1-2008; **RULE 1110.2, 9-7-2012;** RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 3-7-2008; RULE 1470, 6-1-2007; RULE 2012, 5- 6-2005; **40 CFR 60 Subpart IIII, 1-30-2013;** CA PRC CEQA, 11-23-1970; CA PRC CEQA, 11-23-1970]

[Devices subject to this condition: D25]

Verification: The project owner shall submit all dates of operation, elapsed time in hours, and the reason for each operation in the Quarterly Operation Report (**AQ-SC10**)**.**

AQ-22 The project owner shall operate and maintain this equipment according to the following requirements:

The operation of this engine ~~beyond the 50 hours per year allotted for maintenance and performance testing~~ **for emergency use** shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the utility distribution company has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a

certain time, and the engine is located in a utility service block that is subject to the rotating outage.

Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect.

This engine shall be operated for the primary purpose of providing a back up source of power to start a turbine.

[RULE 1110.2, 2-1-2008; **RULE 1110.2, 9-7-2012;** RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 3-7-2008; RULE 1470, 6-1-2007; RULE 2012, 5- 6-2005]

[Devices subject to this condition: D25]

Verification: The project owner shall submit all dates of operation, elapsed time in hours, and the reason for each operation in the Quarterly Operation Report (**AQ-SC10)**.

AQ-23 The project owner shall operate and maintain this equipment according to the following specifications:

The project owner shall operate the diesel particulate filter system only with an operational HiBACK data logging and alarm system with backpressure and temperature monitors.

The HiBACK data logging and alarm system shall be programmed to provide a red warning signal and an audible alarm, whenever the engine backpressure reaches the maximum allowable backpressure of 40 inches of water. The engine backpressure shall not exceed 40 inches of water in operation.

The engine shall be operated at the load level required to achieve an engine exhaust gas temperature of 572 degrees F (300 degrees C) for passive regeneration of the diesel particulate filter for at least 30 percent of the operating time.

The engine shall not be operated below the passive regeneration temperature of 572 degrees F for more than 240 consecutive minutes.

The project owner shall regenerate the diesel particulate filter after every 12 cold starts or whenever a yellow warning signal indicating the backpressure is 10 percent below the maximum allowable backpressure of 40 inches of water is received from the HiBACK alarm system, whichever occurs first. Filter regeneration is complete when the backpressure monitoring system indicates a normal backpressure reading.

The engine shall be shut down and the diesel particulate filter shall be cleaned whenever the backpressure reaches the maximum backpressure limit of 40 inches

water. Cleaning shall be performed according to the manufacturer's recommendations in the installation and maintenance manual.

After every 200 hours of normal engine operation, the project owner shall inspect the integrity of the diesel particulate filter and, if necessary, replace it.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; **40 CFR 60 Subpart IIII, 1-30-2013**]

[Devices subject to this condition: D25

Verification: The project owner shall submit to the CPM no less than 30 days after installation, a written statement by a California registered Professional Engineer stating that said engineer has reviewed the as-built-designs or inspected the identified equipment and certifies that the appropriate devices have been installed and are functioning properly. The project owner shall maintain engine maintenance records tests how compliance with the maintenance requirements of this condition and shall make these records available for inspection by representatives of the District, ARB, and the Commission.

AQ-24 ~~This equipment shall not be operated unless the project owner demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the project owner demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.~~

~~To comply with this condition, the project owner shall prior to the 1st compliance year hold a minimum NOx RTCs of 2412 lbs/yr. This condition shall apply during the 1st 12 months of operation, commencing with the initial operation of the black start engine.~~

~~To comply with this condition, the project owner shall, prior to the beginning of all years subsequent to the 1st compliance year, hold a minimum of 2412 lbs/yr of NOx RTCs for operation of the black start engine.~~

~~In accordance with Rule 2005(f), unused RTC's may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the 1st compliance year.~~

This equipment shall not be operated unless the facility holds 603 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the

facility holds 603 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 5-6-2005]

[Devices subject to this condition: D25]

Verification: The project owner shall provide confirmation from the District 30 days prior to first fire that sufficient RTCs to satisfy the District's requirements for the first year of operation as provided in this condition have been obtained. The project owner shall submit evidence of sufficient RTCs to the CPM demonstrating compliance with this condition for each compliance year after the 1st compliance year, at least 15 days prior to the commencement of that compliance year.

AQ-26 The project owner shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The project owner shall maintain records of diesel particulate filter inspections, replacements, and cleaning.

The project owner shall maintain monthly records of the exhaust temperature, engine backpressure, and date and time for the duty cycle of the engine as downloaded from the HiBACK data logging and alarm system.

All records shall be maintained on file for a minimum of five years and made available to District personnel upon request.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; **40 CFR 60 Subpart IIII, 1-30-2013**]

[Devices subject to this condition: D25]

Verification: The project owner shall make records required by this condition available for inspection by representatives of the District, ARB, and the Commission.

Facility Conditions

AQ-31 The project owner shall not ~~use~~ **purchase** diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

The project owner shall not use fuel oil containing sulfur compounds in excess of 0.05 percent by weight.

~~Material safety data sheets for the diesel fuel shall be kept current and made available to District personnel upon request.~~

[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]

Verification: The project owner shall make the diesel fuel material data sheets available for inspection by representatives of the District, ARB, and the Energy Commission.

AQ-32 The project owner shall not use diesel containing the following specified compounds:

Compound	Range	PPM By Weight
Sulfur	Greater than	15

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002 RULE 1303(b)(2)-Offsets, 5-10-1996; RULE 1303(B)(2)-BACT, 12-6-2002; CFR 60 Subpart IIII, 1-30-20130]

[Devices subject to this condition: D25]

Verification: The project owner shall make the diesel fuel material data sheets available for inspection by representatives of the District, ARB, and the Energy Commission.

AQ-33 The project owner shall operate and maintain this equipment according to the following requirements:

Removal of the diesel particulate filter media for cleaning may only occur under the following conditions:

A. The internal combustion engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed; and

B. The diesel particulate filter media shall be returned and re-installed within 10 working days from the date of removal; and

C. The owner or operator shall maintain records indicating the date(s) the diesel particulate filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained for a minimum of five years.

[RULE 1470, 5-4-2012]

[Devices subject to this condition: D25]

Verification: The project owner shall submit all fuel maintenance records as part of the Quarterly Operation Report (AQ-SC10).

AQ-34 **The project owner shall operate and maintain this equipment according to the following requirements:**

The project owner shall operate and maintain the stationary engine and diesel particulate filter according to the manufacturer's written emission-related instructions (or procedures developed by the operator that are approved by the engine manufacturer), change only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 CFR 89,94 and/or 1068, as they apply.

The project owner shall comply with the emission standards specified in 40 CFR 60.4205(b) by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b), as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications.

[40 CFR 60 Subpart IIII, 1-30-2013]

[Devices subject to this condition: D25]

Verification: The project owner shall submit all fuel maintenance records as part of the Quarterly Operation Report (AQ-SC10).

APPENDIX A

STAFF CONDITIONS

AQ-SC1 Air Quality Construction Mitigation Manager (AQCMM): The project owner shall designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with conditions **AQ-SC3**, **AQ-SC4** and **AQ-SC5** for the entire project site and linear facility construction. The on-site AQCMM may delegate responsibilities to one or more AQCMM Delegates. The AQCMM and AQCMM Delegates shall have full access to all areas of construction on the project site and linear facilities, and shall have the authority to stop any or all construction activities as warranted by applicable construction mitigation conditions. The AQCMM and AQCMM Delegates may have other responsibilities in addition to those described in this condition. The AQCMM shall not be terminated without written consent of the CPM.

Verification: At least 60 days prior to the start of any ground disturbance, the project owner shall submit to the CPM for approval, the name resume, qualifications, and contact information for the on-site AQCMM and all AQCMM Delegates. The AQCMM and all Delegates must be approved by the CPM before the start of ground disturbance.

AQ-SC2 Air Quality Construction Mitigation Plan (AQCMP): The project owner shall provide an AQCMP, for approval, which details the steps that will be taken and the reporting requirements necessary to ensure compliance with conditions **AQ-SC3, AQ-SC4** and **AQ-SC5**.

Verification: At least 60 days prior to the start of any ground disturbance, the project owner shall submit the AQCMP to the CPM for approval. The CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt. The AQCMP must be approved by the CPM before the start of ground disturbance.

AQ-SC3 Construction Fugitive Dust Control: The AQCMM shall submit documentation to the CPM in each Monthly Compliance Report (MCR) that demonstrates compliance with the following mitigation measures for the purposes of preventing all fugitive dust plumes from leaving the project site and linear facility routes. Any deviation from the following mitigation measures shall require prior CPM notification and approval.

A. All unpaved roads and disturbed areas in the project and linear construction sites shall be watered as frequently as necessary to comply with the dust mitigation objectives of **AQ-SC4**. The frequency of watering may be reduced or eliminated during periods of precipitation.

B. No vehicle shall exceed 10 miles per hour within the construction site.

C. The construction site entrances shall be posted with visible speed limit signs.

D. All construction equipment vehicle tires shall be inspected and washed as necessary to be cleaned free of dirt prior to entering paved roadways.

E. Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.

F. All unpaved exits from the construction site shall be graveled or treated to prevent track-out to public roadways.

G. All construction vehicles shall enter the construction site through the treated entrance roadways, unless an alternative route has been submitted to and approved by the CPM.

H. Construction areas adjacent to any paved roadway shall be provided with sandbags or other measures as specified in the Storm Water Pollution Prevention Plan (SWPPP) to prevent run-off to roadways.

I. All paved roads within the construction site shall be swept at least twice daily (or less during periods of precipitation) on days when construction activity occurs to prevent the accumulation of dirt and debris.

J. At least the first 500 feet of any public roadway exiting from the construction site shall be swept at least twice daily (or less during periods of precipitation) on days when construction activity occurs or on any other day when dirt or runoff from the construction site is visible on the public roadways.

K. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or shall be treated with appropriate dust suppressant compounds.

L. All vehicles that are used to transport solid bulk material on public roadways and that have the potential to cause visible emissions from the material shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least two feet of freeboard.

M. Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) shall be used on all construction areas that may be disturbed. Any windbreaks installed to comply with this condition shall remain in place until the soil is stabilized or permanently covered with vegetation.

N. SCAQMD Rule 403 required mitigation measures shall apply when they are more stringent than measures a) through m).

Verification: The project owner shall include in the MCR (1) a summary of all actions taken to maintain compliance with this condition, (2) copies of any complaints filed with the air district in relation to project construction, and (3) any other documentation deemed

necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC4 Dust Plume Response Requirement: The AQCMM or an AQCMM Delegate shall monitor all construction activities for visible dust plumes. Observations of visible dust plumes that have the potential to be transported (1) off the project site or (2) 200 feet beyond the centerline of the construction of linear facilities, or (3) within 100 feet upwind of any regularly occupied structures not owned by the project owner indicate that existing mitigation measures are not resulting in effective mitigation. The AQCMM or Delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed:

Step 1: The AQCMM or Delegate shall direct more intensive application of the existing mitigation methods within 15 minutes of making such a determination.

Step 2: The AQCMM or Delegate shall direct implementation of additional methods of dust suppression if Step 1 specified above fails to result in adequate mitigation within 30 minutes of the original determination.

Step 3: The AQCMM or Delegate shall direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation within one hour of the original determination. The activity shall not restart until the AQCMM or Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the shut-down source. The owner/operator may appeal to the CPM any directive from the AQCMM or Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

Verification: The AQCMP shall include a section detailing how the additional mitigation measures will be accomplished within the time limits specified.

AQ-SC5 Diesel-Fueled Engines Control: The AQCMM shall submit to the CPM, in the MCR, a construction mitigation report that demonstrates compliance with the following mitigation measures for the purposes of controlling diesel construction-related emissions. Any deviation from the following mitigation measures shall require prior CPM notification and approval.

A. All diesel-fueled engines used in the construction of the facility shall be fueled only with ultra-low sulfur diesel, which contains no more than 15 ppm sulfur.

B. All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM showing that the engine meets the conditions set forth herein.

C. A good faith effort shall be made to find and use off-road construction diesel equipment that has a rating of 100 hp to 750 hp and that meets the Tier 3

California Emission Standards for Off-Road Compression-Ignition Engines as specified in Title 13, California Code of Regulations section 2423(b)(1). This good faith effort shall be documented with signed written correspondence by the appropriate construction contractors along with documented correspondence with at least two construction equipment rental firms.

D. All construction diesel engines, which have a rating of 50 hp or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in Title 13, California

E. Code of Regulations section 2423(b)(1). The following exceptions for specific construction equipment items may be made on a case-by-case basis.

1. Tier 1 equipment will be allowed on a case-by-case basis only when the project owner has documented that no Tier 2 equipment is available for a particular equipment type that must be used to complete the project's construction. This shall be documented with signed written correspondence by the appropriate construction contractors along with documented correspondence with at least two construction equipment rental firms.

2. The construction equipment item is intended to be on site for five days or less.

3. Equipment owned by specialty subcontractors may be granted an exemption, for single equipment items on a case-by-case basis, if it can be demonstrated that extreme financial hardship would occur if the specialty subcontractor had to rent replacement equipment, or if it can be demonstrated that a specialized equipment item is not available by rental.

F. All heavy earthmoving equipment and heavy duty construction-related trucks with engines meeting the requirements of (c) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications.

G. All diesel heavy construction equipment shall not remain running at idle for more than five minutes, to the extent practical.

H. Construction equipment will employ electric motors when feasible.

Verification: The project owner shall include in the MCR (1) a summary of all actions taken to maintain compliance with this condition, (2) copies of all diesel fuel purchase records, (3) a list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained, and (4) any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion

AQ-SC6 The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. The project

owner shall submit to the CPM any modification to any permit proposed by the SCAQMD or U.S.EPA, and any revised permit issued by the SCAQMD or U.S.EPA, for the project.

Verification: The project owner shall submit any proposed air permit modification to the CPM within five working days of its submittal either by 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency. The project owner shall submit all modified air permits to the CPM within 15 days of receipt.

AQ-SC7 The project owner shall provide emission reductions in the form of offsets or emission reductions credits (ERCs) in the quantities of at least 7.22 tons per year (tpy) VOC, 9.83 tpy PM10, and 1.94 tpy SOx emissions. The project owner shall demonstrate that the reductions are provided in the form required by the South Coast Air Quality Management District.

Verification: The project owner shall submit to the CPM records showing that the project's offset requirements have been met. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and the Energy Commission docket. The project owner and CPM shall maintain an updated list of approved ERCs for the project.

AQ-SC8 The project owner shall perform cooling tower recirculating water quality testing at least once during any quarter when the cooling tower has operated, or shall provide for continuous monitoring of conductivity as an indicator, for total dissolved solids content.

Verification: The project owner shall submit to the CPM cooling tower recirculating water quality tests or a summary of continuous monitoring results and daily recirculating water flow in the Quarterly Operation Report (**AQ-SC10**). If the project owner uses continuous monitoring of conductivity as an indicator for total dissolved solids content, the project owner shall submit data supporting the calibration of the conductivity meter and the correlation with total dissolved solids content at least once each year in a Quarterly Operation Report (**AQ-SC10**).

AQ-SC9 The cooling towers daily PM10 emissions shall be limited to 0.96 lbs/day in total for all four cooling tower cells. The cooling towers shall be equipped with a drift eliminator to control the drift fraction to no greater than 0.001 percent of the circulating water flow. The project owner shall estimate daily PM10 emissions from the cooling towers using the quarterly water quality testing data or continuous monitoring data and daily circulating water flow data. Compliance with the cooling tower PM10 emission limit shall be demonstrated as follows:

PM10 = cooling water recirculation rate (lbs/hr) * total dissolved solids concentration in the blowdown water (ppm/1,000,000) * design controlled drift rate (fraction.

Verification: The project owner shall submit the manufacturers guarantee for the drift eliminator demonstrating compliance with this condition at least 30 days before installation of the chiller cooling tower. The project owner shall submit cooling tower water quality sampling or continuous monitoring plan for approval by the CPM at least 30 days before first turbine fire. The project owner shall submit to the CPM daily cooling tower PM10 emission estimates in the Quarterly Operation Report (**AQ-SC10**) for all quarters during which the cooling tower was operated.

AQ-SC10 The project owner shall submit to the CPM Quarterly Operation Reports, following the end of each calendar quarter, that include operational and emissions information as necessary to demonstrate compliance with the Conditions of Certification herein. The Quarterly Operation Report will specifically note or highlight incidences of noncompliance.

Verification: The project owner shall submit the Quarterly Operation Reports to the CPM and the District (if requested by the District) no later than 30 days following the end of each calendar quarter.

DISTRICT FINAL DETERMINATION OF COMPLIANCE CONDITIONS (SCAQMD 2009F)

Gas Turbines (D1, D7, D13 and D19)

(note: the following conditions are per turbine unless otherwise specified)

The following conditions are applicable to the General Electric LM6000PC Sprint, Simple Cycle Natural Gas Turbines.

AQ-1 The project owner shall limit emission from this equipment as follows:

CONTAMINANT	EMISSION LIMIT
VOC	Less than or equal to 412 lbs IN ANY CALENDAR MONTH
PM10	Less than or equal to 540 lbs IN ANY CALENDAR MONTH
SOx	Less than or equal to 108 lbs IN ANY CALENDAR MONTH
VOC	Less than or equal to 3,608 lbs IN ANY YEAR
PM10	Less than or equal to 4,822 lbs IN ANY YEAR
SOx	Less than or equal to 971 lbs IN ANY YEAR

For the purposes of this condition, the above emission limits shall be based on the emissions from a single turbine.

The project owner shall calculate the monthly emissions for VOC, PM10, and SOx using the equation below.

Monthly Emissions, lbs/month = (Monthly fuel usage in mmscf/month) * (Emission factors indicated below)

For normal operation, including startups and shutdowns, the emission factors shall be as follows: VOC, 2.59 lbs/mmcf; PM10, 3.40 lbs/mmcf; and SOx, 0.68 lbs/mmcf.

For maintenance operations, the emission factors shall be as follows: VOC, 2.64 lbs/mmcf; PM10, 3.52 lbs/mmcf; and SOx, 0.68 lbs/mmcf.

For the purposes of this condition, the annual emission limit shall be defined as a period of twelve (12) consecutive months determined on a rolling basis with a new 12-month period beginning on the first day of each calendar month.

The project owner shall maintain records in a manner approved by the District to demonstrate compliance with this condition and the records shall be made available to District personnel upon request. The records shall include, but not be limited to, natural gas usage in a calendar month.

[RULE 1303(b)(2)–Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit all emission calculations, fuel use, CEM records and a summary demonstrating compliance with all emission limits stated in this Condition to the CPM in the Quarterly Operation Report. (**AQ-SC10**).

AQ-2 Mass emission concentrations from the turbines after abatement shall not exceed 2.5 ppmv for oxides of nitrogen (NOx), 4.0 ppmv for carbon monoxide (CO), and 2 ppmv for volatile organic compounds (VOC). The 2.5 ppm NOx, 4.0 ppm CO, and 2.0 ppm ROG emission limits shall not apply during turbine start-up, shutdown, and maintenance periods. Each start-up shall not exceed 35 minutes. Each shutdown shall not exceed 10 minutes. Each turbine shall be limited to a maximum of 540 start-ups per year and a maximum of 10 hours of maintenance operations per year.

NOx, CO, and ROG emissions for an hour that includes a start-up shall not exceed 14.27 lbs for NOx, 11.6 lbs for CO, and 1.29 lbs for ROG and for the hour that includes a shutdown 4.07 lbs for NOx, 4.15 for CO, and 1.27 lbs for ROG. For the purpose of defining an hour that includes a start-up, the period begins when natural gas is first introduced into the turbine and ends after 60 minutes. For the purpose of defining an hour that includes a shutdown, the period begins 60 minutes prior to the minute that natural gas stops flowing into the turbine.

For an hour that includes a start-up and shutdown, the start-up emissions limit is applicable. The worst case includes a full start-up sequence of 35 minutes, followed immediately by a turbine trip, a five minute purge period during which no fuel is burned, and the first 20 minutes of restart sequence.

NOx, CO, and ROG emissions for maintenance operations shall not exceed 44.0 lbs for NOx, 19.4 lbs for CO and 1.25 lbs for ROG, in any hour.

The project owner shall maintain records in a manner approved by the District to demonstrate compliance with this condition and the records shall be made available to District personnel upon request.

For the purposes of this condition, start-up shall be defined as the start-up process to bring the turbine to full successful operation.

For the purposes of this condition, shutdown shall be defined as a reduction in turbine load ending in a period of zero fuel flow.

For the purposes of this condition, maintenance shall be defined as the optimizing and rebalancing of the NH_3 grid or catalyst modules, and the retuning and testing of the turbine control systems.

[RULE 1703(a)(2) – PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005; RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6- 2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall provide start-up and shutdown occurrence and duration data as part as part of the Quarterly Operation Report (**AQ-SC10**). The project owner shall make the site available for inspection of the commissioning and start-up/shutdown records by representatives of the District, ARB and the Commission.

AQ-3 **Deleted**

AQ-4 The 2.5 ppmv NOX emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry.

The 4.0 ppmv CO emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry.

The 2.0 ppmv ROG emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry.

[RULE 2005, 6-3-2011]

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit to the CPM emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC10**).

AQ-5 For the purpose of determining compliance with District Rule 475, combustion contaminant emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

[RULE 475, 10-8-1976; RULE 475, 8-7-1978]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall make the site emissions records available for inspection by representatives of the District, ARB, and the Commission.

AQ-6 The project owner shall not use natural gas containing the following specified compounds:

Compound	Range	Grain per 100 scf
H_2S	Greater than	0.25

This concentration limit is an annual average based on monthly samples of natural gas composition or gas supplier documentation. Gaseous fuel samples shall be tested using District Method 307-91 for total sulfur calculated as H_2S.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit fuel gas sulfur content records as part of the Quarterly Operation Report (**AQ-SC10**).

AQ-7 The project owner shall install and maintain a(n) flow meter to accurately indicate the fuel usage being supplied to the turbine.

The project owner shall also install and maintain a device to continuously record the parameter being measured.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 2012, 5-6-2005]

[Devices subject to this condition: D1, D7, D13, D19

Verification: The project owner shall submit fuel gas sulfur content records as part of the Quarterly Operation Report (**AQ-SC10**).

AQ-8 Deleted

AQ-9 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant	Method	Averaging Time	Test Location
NH_3	District Method 207.1 and 5.3 or U.S.EPA Method 17	1 hour	Outlet of SCR

The test(s) shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

If the turbine is not in operation during one quarter, then no testing is required during that quarter.

The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted and the results submitted to the District within 60 days after the test date.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit the proposed protocol for the initial source tests 45 days prior to the proposed source test date to both the SCAQMD and CPM for approval. The project owner shall notify the SCAQMD and CPM no later than 10 days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the SCAQMD and CPM.

AQ-10 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant	Method	Sampling Time	Test Location
SOx	AQMD Laboratory Method 307-91	N/A	Fuel Sample
VOC	District Method 25.3	1 hour	Outlet of SCR
PM	District Method 5.1	4 hours	Outlet of SCR

The PM emissions testing shall be conducted using District Method 5.1 as described in Section 3.3 of the Delta Air Quality Services, Inc. protocol, dated September 27, 2013 and approved by the SCAQMD on October 10, 2013. The testing shall consist of one run with a sampling time of four hours minimum for the

run. The PM emissions results will be considered to be a surrogate for the PM10 emissions.

As source testing methods and techniques evolve, a new protocol may be submitted and evaluated by the AQMD for approval in accordance with the procedure described below.

For PM (surrogate for PM10), the tests shall be conducted at least once every 18 months in order to verify compliance with the emission rate of 1.67 lb/hr PM10 at maximum load during normal operations. If all tests conducted over a three-year period comply with the 1.67 lb/hr limit for PM10 the facility shall have the option of reducing the source test frequency to once every three years.

For SOx and VOC, the test shall be conducted at least once every three years. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (cfh), the flue gas flow rate, and the turbine generating output in MW.

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent, with the exception of PM testing (surrogate for PM10). For PM, the test shall be conducted when this equipment is operating at a load of 100 percent.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters are done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per U.S.EPA Method TO-12 (with preconcentration) and temperature of canisters when extracting samples for analysis is not below 70 degrees F.

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD Method 25.3, nor does it mean that it may be used in lieu of AQMD Method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines.

Because the VOC BACT level was set using data derived from various source test results, this alternate VOC compliance method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results shall be reported with two significant digits.

For the purposes of this condition, an alternative test method may be allowed for each of the above pollutants upon concurrence of AQMD, U.S.EPA, and ARB.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit the proposed protocol for the source tests 45 days prior to the proposed source test date to both the SCAQMD and CPM for approval. The project owner shall notify the SCAQMD and CPM no later than 10 days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the SCAQMD and CPM.

AQ-11 The project owner shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lbs/hr), and lbs/mmcf. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains/dscf.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (dscfm) and dry actual cubic feet per minute (dacfm).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the heating content of the fuel, the flue gas temperature, and the generator power output (MW) under which the test was conducted.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 2005, 5-6-2005]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall submit source test results no later than 60 days following the source test date to both the SCAQMD and CPM. The project owner shall notify the SCAQMD and CPM no later than 10 days prior to the proposed source test date and time.

AQ-12 The project owner shall install and maintain a CEMS to measure the following parameters:

NOx concentration in ppmv and CO concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CO CEMS shall be installed and operating no later than 90 days after initial startup of the turbine, in accordance with an approved AQMD Rule 218 CEMS plan application. The project owner shall not install the CEMS prior to receiving initial approval from AQMD. Within two weeks of the turbine start-up, the project owner shall provide written notification to the District of the exact date of start-up.

The NOx CEMS shall be installed and operating no later than 90 days after initial start-up of the turbine and shall comply with the requirements of Rule 2012. During the interim period between the initial start-up and the provisional certification date of the CEMS, the project owner shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks of the turbine start-up date, the project owner shall provide written notification to the District of the exact date of start-up.

The CO CEMS shall be installed and operated to measure CO concentrations over a 15 minute averaging time period.

The NOx CEMS shall be installed and operating (for BACT purposes only) no later than 90 days after initial start-up of the turbine.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 218, 8-7-1981; RULE 218, 5-14-1999]

[RULE 2005, 5-6-2005; RULE 2012, 5-6-2005]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: Within 30 days of certification, the project owner shall notify the CPM of the completion of the certification process for the CEMS.

AQ-13 This equipment is subject to the applicable requirements of the following Rules or Regulations.

Contaminant	Rule	Rule/Subpart

NOx	40CFR60, SUBPART	KKKK
SOx	40CFR60, SUBPART	KKKK

[40 CFR 60 Subpart KKKK, 7-6-2006]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall provide appropriate records to show compliance with 40 CFR 60 Subpart KKKK as part of the Quarterly Operation Report (**AQ-SC10**).

AQ-14 This equipment shall not be operated unless the facility holds 15,017 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from this initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 15,017 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

The condition shall apply to each turbine individually.

[RULE 2005, 6-3-2011]

[Devices subject to this condition: D1, D7, D13, D19]

Verification: The project owner shall provide confirmation from the District 30 days prior to first fire that sufficient RTCs to satisfy the District's requirements for the first year of operation as provided in this condition have been obtained. The project owner shall submit evidence of sufficient RTCs to the CPM demonstrating compliance with this condition for each compliance year after the 1st compliance year, at least 15 days prior to the commencement of that compliance year.

AQ-15 **Deleted**

AQ-16 NH_3 emissions will be limited to 5 ppmv. The 5 ppmv NH_3 emission limit(s) is averaged over 60 minutes at 15 percent O_2, dry basis. The project owner shall calculate and continuously record the NH_3 slip concentration using the following equation.

District Requirement

NH_3 (ppmv) = [a–b*c/1E6]*1E6/b; where

a = NH_3 injection rate (lbs/hr)/17(lbs/lbs-mol)

b = dry exhaust gas flow rate (scf/hr)/385.3 (scf/lbs-mol)

c = change in measured NOx across the SCR (ppmvd at 15 percent O_2)

The project owner shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months.

The NOx analyzer shall be installed and operated within 90 days of initial start-up.

The project owner shall use the above described method or another alternative method approved by the District's Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved reference method for the determination of ammonia.

[RULE 1303(a)(1) – BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: C4, C10, C16, C22]

Verification: The project owner shall include ammonia slip concentrations averaged on an hourly basis as part of the Quarterly Operation Report (**AQ-SC10**). The project owner shall submit all SCR inlet NOx analyzer calibration results to the CPM within 60 days of the calibration date. Exceedances of the ammonia limit shall be reported and chronic exceedances of the ammonia slip limit, defined as occurring more than 10 percent of the operation for any single HRSG exhaust stack, shall be identified by the project owner and confirmed by the CPM within 60 days of the submitted Quarterly Operation Report (**AQ-SC10**) that indicates chronic exceedances. If a chronic exceedance is identified and confirmed, the project owner shall work in conjunction with the CPM to develop a reasonable compliance plan to investigate and redress the chronic exceedance of the ammonia slip limit within 60 days of the above confirmation.

AQ-17 The project owner shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The project owner shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The calibration records shall be kept on site and made available to District personnel upon request.

The ammonia injection system shall be placed in full operation as soon as the minimum temperature at the outlet to the SCR reactor is reached. The minimum temperature is 540 degrees F.

The ammonia injection rate shall remain between 52.32 lb/hr and 122.57 lb/hr.

Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

[RULE 1303(a)(1) – BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition: C4, C10, C16, C22]

Verification: The project owner shall submit to the CPM no less than 30 days after installation, a written statement by a California registered Professional Engineer stating that said engineer has reviewed the as-built-designs or inspected the identified equipment and certifies that the appropriate device has been installed and is functioning properly. The project owner shall submit annual calibration results within 30 days of their successful completion and shall make the records required under the condition available for inspection by representatives of the District, ARB, and the Commission.

AQ-18 The project owner shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the exhaust at the inlet to the SCR reactor.

The project owner shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The catalyst temperature range shall remain between 665 degrees F and 870 degrees F.

The catalyst inlet temperature shall not exceed 870 degrees F.

The temperature range requirement of this condition shall not apply during start-up conditions of the turbine not to exceed 35 minutes per start-up. For this condition, start-up shall be defined as the start-up process to bring the turbine to full successful operation.

Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

[RULE 1303(a)(1) – BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition: C4, C10, C16, C22]

Verification: The project owner shall submit to the CPM no less than 30 days after installation, a written statement by a California registered Professional Engineer stating that said engineer has reviewed the as-built-designs or inspected the identified equipment and certifies that the appropriate device has been installed and is functioning properly. The project owner shall submit annual calibration results within 30 days of their successful completion.

AQ-19 The project owner shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The project owner shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The pressure drop across the catalyst shall not exceed 6 inches water column.

Continuous record shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

[RULE 1303(a)(1) – BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1703(a)(2)-PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]

[Devices subject to this condition: C4, C10, C16, C22]

Verification: The project owner shall submit to the CPM no less than 30 days after installation, a written statement by a California registered Professional Engineer stating that said engineer has reviewed the as-built-designs or inspected the identified equipment and certifies that the appropriate device has been installed and is functioning properly. The project owner shall submit annual calibration results within 30 days of their successful completion.

Black Start Diesel Engine (D25)

AQ-20 The project owner shall limit the operating time to no more than 50 hour(s) in any one year.

The 50 hours in any one year shall include no more than 50 hours in any one year for maintenance and performance testing and no more than 4.2 hours in any one month for maintenance and performance testing.

[RULE 1110.2, 2-1-2008; RULE 1110.2, 9-7-2012; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 3-7-2008; RULE 1470, 6-

1-2007; RULE 2012, 5- 6-2005; 40 CFR 60 Subpart IIII, 1-30-2013; CA PRC CEQA, 11-23-1970; CA PRC CEQA, 11-23-1970]

[Devices subject to this condition: D25]

Verification: The project owner shall submit all dates of operation, elapsed time in hours, and the reason for each operation in the Quarterly Operation Report (**AQ-SC10**)**.**

AQ-21 The project owner shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

[RULE 1110.2, 2-1-2008; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 3-7-2008; RULE 1470, 6-1-2007; RULE 2012, 5- 6-2005]

[Devices subject to this condition: D25]

Verification: The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission. The project owner shall submit elapsed time in hours in the Quarterly Operation Report (**AQ-SC10**).

AQ-22 The project owner shall operate and maintain this equipment according to the following requirements:

The operation of this engine for emergency use shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the utility distribution company has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage.

Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect.

This engine shall be operated for the primary purpose of providing a back up source of power to start a turbine.

[RULE 1110.2, 2-1-2008; RULE 1110.2, 9-7-2012; RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 3-7-2008; RULE 1470, 6-1-2007; RULE 2012, 5- 6-2005]

[Devices subject to this condition: D25]

Verification: The project owner shall submit all dates of operation, elapsed time in hours, and the reason for each operation in the Quarterly Operation Report (**AQ-SC10)**.

AQ-23 The project owner shall operate and maintain this equipment according to the following specifications:

The project owner shall operate the diesel particulate filter system only with an operational HiBACK data logging and alarm system with backpressure and temperature monitors.

The HiBACK data logging and alarm system shall be programmed to provide a red warning signal and an audible alarm, whenever the engine backpressure reaches the maximum allowable backpressure of 40 inches of water. The engine backpressure shall not exceed 40 inches of water in operation.

The engine shall be operated at the load level required to achieve an engine exhaust gas temperature of 572 degrees F (300 degrees C) for passive regeneration of the diesel particulate filter for at least 30 percent of the operating time.

The engine shall not be operated below the passive regeneration temperature of 572 degrees F for more than 240 consecutive minutes.

The project owner shall regenerate the diesel particulate filter after every 12 cold starts or whenever a yellow warning signal indicating the backpressure is 10 percent below the maximum allowable backpressure of 40 inches of water is received from the HiBACK alarm system, whichever occurs first. Filter regeneration is complete when the backpressure monitoring system indicates a normal backpressure reading.

The engine shall be shut down and the diesel particulate filter shall be cleaned whenever the backpressure reaches the maximum backpressure limit of 40 inches water. Cleaning shall be performed according to the manufacturer's recommendations in the installation and maintenance manual.

After every 200 hours of normal engine operation, the project owner shall inspect the integrity of the diesel particulate filter and, if necessary, replace it.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; 40 CFR 60 Subpart IIII, 1-30-2013]

[Devices subject to this condition: D25

Verification: The project owner shall submit to the CPM no less than 30 days after installation, a written statement by a California registered Professional Engineer stating that said engineer has reviewed the as-built-designs or inspected the identified equipment and certifies that the appropriate devices have been installed and are functioning properly. The project owner shall maintain engine maintenance records tests how compliance with the maintenance requirements of this condition and shall make these records available for inspection by representatives of the District, ARB, and the Commission.

AQ-24 This equipment shall not be operated unless the facility holds 603 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 603 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[RULE 2005, 5-6-2005]

[Devices subject to this condition: D25]

Verification: The project owner shall provide confirmation from the District 30 days prior to first fire that sufficient RTCs to satisfy the District's requirements for the first year of operation as provided in this condition have been obtained. The project owner shall submit evidence of sufficient RTCs to the CPM demonstrating compliance with this condition for each compliance year after the 1st compliance year, at least 15 days prior to the commencement of that compliance year.

AQ-25 The project owner shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

An engine operating log shall be maintained which on a monthly basis shall list all engine operations in each of the following areas:

A. Emergency use hours of operation,

B. Maintenance and testing hours, and

C. Other operating hours, with a description of the reason for operation.

In addition, each time the engine is started manually, the log shall include the date of operation and the timer reading in hours at the beginning and end of operation. The log shall be kept for a minimum of five calendar years prior to the current year and made available to District personnel upon request. The total hours of operation for the previous calendar year shall be recorded some time during the first 15 days of January each year.

[RULE 1110.2, 2-1-2008]

[Devices subject to this condition: D25]

Verification: The project owner shall make records required by this condition available for inspection by representatives of the District, ARB, and the Commission.

AQ-26 The project owner shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The project owner shall maintain records of diesel particulate filter inspections, replacements, and cleaning.

The project owner shall maintain monthly records of the exhaust temperature, engine backpressure, and date and time for the duty cycle of the engine as downloaded from the HiBACK data logging and alarm system.

All records shall be maintained on file for a minimum of five years and made available to District personnel upon request.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; 40 CFR 60 Subpart IIII, 1-30-2013]

[Devices subject to this condition: D25]

Verification: The project owner shall make records required by this condition available for inspection by representatives of the District, ARB, and the Commission.

Ammonia Tank (D28)

AQ-27 The project owner shall install and maintain a pressure relief valve set at 25 psig.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: D28]

Verification: The project owner shall make the site available for inspection by representatives of the District, ARB and the Commission.

AQ-28 The project owner shall vent this equipment, during filling, only to the vessel from which it is being filled.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: D28]

Verification: The project owner shall make the site available for inspection by representatives of the District, ARB and the Commission.

AQ-29 The project owner shall keep records in a manner approved by the Executive Officer, for the following parameter(s) or item(s):

The project owner shall document an inspection each time the tank is filled to ensure the vapor recovery equipment is consistently and properly used.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition: D28]

Verification: The project owner shall make records required by this condition available for inspection by representatives of the District, ARB, and the Commission.

Facility Conditions

AQ-30 Except for open abrasive blasting operations, the project owner shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

A. As dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

B. Of such opacity as to obscure an observer' s view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

Verification: The project owner shall make the site available for inspection by representatives of the District, ARB, and the Commission.

AQ-31 The project owner shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

The project owner shall not use fuel oil containing sulfur compounds in excess of 0.05 percent by weight.

[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]

Verification: The project owner shall make the diesel fuel material data sheets available for inspection by representatives of the District, ARB, and the Energy Commission.

AQ-32 The project owner shall not use diesel containing the following specified compounds:

Compound	Range	PPM By Weight
Sulfur	Greater than	15

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002 RULE 1303(b)(2)-Offsets, 5-10-1996; RULE 1303(B)(2)-BACT, 12-6-2002; CFR 60 Subpart IIII, 1-30-20130]

[Devices subject to this condition: D25]

Verification: The project owner shall make the diesel fuel material data sheets available for inspection by representatives of the District, ARB, and the Energy Commission.

AQ-33 The project owner shall operate and maintain this equipment according to the following requirements:

Removal of the diesel particulate filter media for cleaning may only occur under the following conditions:

A. The internal combustion engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed; and

B. The diesel particulate filter media shall be returned and re-installed within 10 working days from the date of removal; and

C. The owner or operator shall maintain records indicating the date(s) the diesel particulate filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained for a minimum of five years.

[RULE 1470, 5-4-2012]

[Devices subject to this condition: D25]

Verification: The project owner shall submit all fuel maintenance records as part of the Quarterly Operation Report (AQ-SC10).

AQ-34 The project owner shall operate and maintain this equipment according to the following requirements:

The project owner shall operate and maintain the stationary engine and diesel particulate filter according to the manufacturer's written emission-related instructions (or procedures developed by the operator that are approved by the engine manufacturer), change only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 CFR 89,94 and/or 1068, as they apply.

The project owner shall comply with the emission standards specified in 40 CFR 60.4205(b) by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b), as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications.

[40 CFR 60 Subpart IIII, 1-30-2013]

[Devices subject to this condition: D25]

Verification: The project owner shall submit all fuel maintenance records as part of the Quarterly Operation Report (AQ-SC10).

REFERENCES

CALISO 2014 - Flexible Resource Adequacy Criteria and Must-Offer Obligation – Market and Infrastructure Policy Revised Draft Final Proposal, March 7, 2014.

CALISO 2014a - Flexible Resource Adequacy Capacity Compliance, November 18, 2014.

CALISO 2014b - Errata Flexible Resource Adequacy Capacity, November 25, 2014.

CEC 2009 – California Energy Commission – Canyon Power Plant Final Staff Assessment (TN 53584), November 8, 2009

CEC 2010 – California Energy Commission – Canyon Power Plant Final Commission Decision (TN 56015). March 23, 2010

CEC 2012 – California Energy Commission – Order Approving Petition to Amend (TN 67168). September 17, 2012

COA 2014 – Application for Certification Appendix B (TN 43903/4398), docketed December 28, 2007.

GE – General Electric – PM10 Emissions from LM6000 for Mariposa Energy, LLC

SCAQMD 2009 – South Coast Air Quality Management District – Letter Regarding Emission Offsets (TN 53988), docketed November 5, 2009

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SCAQMD 2014 - Canyon Power Plant Draft SCAQMD Permit and Analysis (TN 203434), docketed December 12, 2014.

SCPPA 2014 – Petition to Amend (TN 203123), docketed September 29, 2014.

SCPPA 2014a – Canyon Power Plant Amendment 2 Revised Air Dispersion Modeling (TN 203397), docketed December 2, 2014.