

DOCKETED

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Project Title:	Mountainview Power Plant - Compliance
TN #:	221320
Document Title:	Memo Regarding Staff Analysis of Proposed Petition to Amend Modification to Carbon Monoxide Catalyst Replacements
Description:	Staff Analysis for PTA replacing the CO Catalysts; result will continue to meet all emissions limits established in existing permits for the Mountainview Generating Station Project
Filer:	Mike Monasmith
Organization:	California Energy Commission
Submitter Role:	Commission Staff
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CALIFORNIA ENERGY COMMISSION

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DATE: September 26, 2017

TO: Interested Parties

FROM: Mike Monasmith, Senior Project Manager

**SUBJECT: MOUNTAINVIEW GENERATING STATION PROJECT (00-AFC-02C)
Staff Analysis of the Proposed Petition to Amend Modification to Carbon
Monoxide Catalyst Replacements**

On August 11, 2017, the Southern California Edison Company (SCE), the owner of the Mountainview Generating Station (Mountainview), filed a petition (TN:220661) with the California Energy Commission (Energy Commission) requesting to amend the March 22, 2001 Final Decision for Mountainview. Staff prepared an analysis of this proposed change that can be reviewed on the Energy Commission website (see below). The 1,056-megawatt project was certified on March 21, 2001, and began commercial operation on January 19, 2006. The facility is located on 54.3 acres in the city of Redlands, in San Bernardino County.

SCE will replace the CO Catalysts (COC) on Mountainview's four combustion turbines. The current CO catalyst beds are original to the plant and nearing the end of their expected service life. Routine replacement is needed to assure the plant continues to meet its air permit limits, as specified in the plant's South Coast Air Quality Management District (SCAQMD) and Environmental Protection Agency (EPA) Title V permit, and Energy Commission certification. The project will continue to meet all existing emissions limits established in the existing permits.

The proposed petition to amend (PTA) would result in harmonizing changes to the Energy Commission's conditions of certification to mirror the Air District's permit updates and correct a minor error that currently exists in the preamble to the air quality conditions that relates to the catalyst size.

Energy Commission staff reviewed the PTA for conformance with laws, ordinances, regulations and standards (LORS) and assessed the impacts of this proposal on environmental quality and on public health and safety. Staff has recommended language changes to existing air quality conditions of certification. It is staff's opinion that, with the implementation of the proposed changes, the facility would remain in compliance with applicable LORS and that the proposed modifications would not result in significant adverse direct or cumulative impacts to the environment (Cal. Code of Regs., tit. 20, § 1769). With staff's proposed changes, Energy Commission staff intends to recommend that the Energy Commission approve the PTA at the October 11, 2017 Business Meeting.

The Energy Commission's webpage for this facility, <http://www.energy.ca.gov/sitingcases/mountainview/>, 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. The California Energy Commission's Order regarding this petition will also be available from the same webpage.

This notice is being sent to the Energy Commission's list of interested parties and property owners adjacent to the facility site. It is also being e-mailed to the facility listserv. The listserv is an automated Energy Commission email system by which information about this facility is emailed 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's webpage to the box labeled "Subscribe," and provide the requested contact information.

Agencies and members of the public who wish to provide comments on the petition or Staff Analysis must submit their comments by 5:00 p.m. on October 10, 2017. 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 (Dockets Unit) reviews and approves your comments, and you will receive an email with a link to them.

Written comments may also be mailed or hand delivered to:

California Energy Commission
Dockets Unit, MS-4
Docket No. 00-AFC-02C
1516 Ninth Street
Sacramento, CA 95814-5512

All comments and materials filed with the Dockets Unit will become part of the public record of the proceeding. If you have any questions, please contact Mike Monasmith, Senior Project Manager, at (916) 654-4894, or by fax to (916) 653-4677, or via e-mail at: mike.monasmith@energy.ca.gov.

If you would like information on participating in the Energy Commission's amendment process, please call the Energy Commission's Public Adviser's Office at (800) 822-6228 (toll-free in California).

The Public Adviser's Office can also be contacted via e-mail at publicadviser@energy.ca.gov.

News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by email at mediaoffice@energy.ca.gov.

Enclosure

Send to list # 750
Mountainview Listserve

MOUNTAINVIEW GENERATING STATION (00-AFC-02C)

Petition to Amend Commission Decision

EXECUTIVE SUMMARY

Mike Monasmith

INTRODUCTION

On August 11, 2017, the Southern California Edison Company (SCE), the owner of the Mountainview Generating Station (Mountainview), filed a petition (TN:220661) with the California Energy Commission (Energy Commission) requesting to amend the March 22, 2001 Final Decision for Mountainview. The 1,056-megawatt project was certified on March 21, 2001, and began commercial operation on January 19, 2006. The facility is located in the city of Redlands, in San Bernardino County.

SCE is requesting approval to replace the CO Catalysts (COC) for each of Mountainview's four combustion turbines. 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 (Decision), and whether the project, as modified, will remain in compliance with applicable laws, ordinances, regulations, and standards (LORS) (Cal. Code of Regs., tit. 20 § 1769).

This Staff Analysis (SA) contains the Energy Commission staff's evaluation of the effected technical area of **Air Quality**. Staff has determined that no other technical area is impacted by the proposed amendment or requires any additional analysis.

DESCRIPTION OF PROPOSED MODIFICATIONS

SCE plans to replace the CO catalysts (COC) on the four combustion turbines at Mountainview. The current CO catalyst beds are original to the plant, and nearing the end of their expected service life. The project will continue to meet all emissions limits established in the existing permits. The modifications proposed in the petition will require administrative changes to several air quality conditions of certification.

NECESSITY FOR THE PROPOSED MODIFICATIONS

Routine replacement of the CO catalysts is needed to assure the plant continues to meet its air permit limits, as specified in the plant's South Coast Air Quality Management District (SCAQMD) and Environmental Protection Agency (EPA) Title V permit, and CEC Certification. Pursuant to the catalyst manufacturer's recommendation, the replacement catalysts will be functionally identical to, but slightly larger (at 185 cubic feet, each) than the existing catalyst beds, (at 160 cubic feet, each). As catalyst volume is a stated parameter in the plant's Title V permit, SCE worked with the SCAQMD to revise the air permit for this increased CO catalyst volume. Coincidentally, as part of this work, SCE found that the current Title V permit contained an error regarding the CO catalyst volumes. As stated above, the existing CO catalyst beds each contain roughly 160 cubic feet of catalyst, rather than the 240 cubic feet erroneously stated on the current permit.

STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

The technical areas contained in this Staff Analysis indicate recommended staff changes to the conditions of certification in the Final Decision. Staff believes that by requiring the proposed changes to the existing conditions, the potential impacts of the proposed changes would be reduced to less than significant levels. Staff's conclusions reached in each technical area are summarized in **Executive Summary Table 1**.

**Executive Summary Table 1
Summary of Impacts to Each Technical Area**

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

*Staff has concluded that the modifications will not have a significant effect on the environment and the modification will not result in a change or deletion of a condition adopted by the commission in the final decision or make changes that would cause the project not to comply with any applicable laws, ordinances, regulations, or standards (LORS) (Cal. Code Regs., tit. 20, § 1769 (a)(2)).

Energy Commission technical staff reviewed the petition for potential environmental effects and consistency with applicable LORS. Staff has determined that the technical or environmental areas of Biological Resources, Cultural Resources, Efficiency, Facility Design, Geological Resources, Land Use, Noise and Vibration, Paleontological Resources, Reliability, Soils and Water Resources, Transmission Line Safety and Nuisance, Transmission System Engineering, and Visual Resources 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 the technical area of Hazardous Materials Management, Public Health and Safety, Socioeconomics, Traffic and Transportation, Waste Management, and Worker Safety and Fire Protection staff has determined that the modified project would continue to comply with applicable LORS and no changes to any conditions of certification are

necessary to ensure impacts remain less than significant. Discussions for these technical areas are included in **Appendix B**, starting at page 92 of this analysis.

Staff determined that the technical area of Air Quality Resources would be affected by the proposed project change and has proposed revised and new conditions of certification to assure compliance with LORS and to reduce potential environmental impacts to a less than significant level. The details of the proposed condition changes can be found in the attached **Air Quality Staff Resources Analysis**.

CONCLUSIONS AND RECOMMENDATIONS

Air Quality

Energy Commission staff recommends approval of the requested replacement of the CO catalyst and the proposed changes to the air quality conditions of certification for Mountainview. These requested changes are considered minor changes and would not require an increase in any emission limit. The proposed changes would 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 and a draft Title V permit incorporating the CO catalyst replacement is currently in review. The changes to the Energy Commission's conditions of certification also include an equipment list with the updated catalyst size.

MOUNTAINVIEW GENERATING STATION (00-AFC-02C)
Petition to Amend Commission Decision
AIR QUALITY
Nancy Fletcher

INTRODUCTION

On August 11, 2017, Southern California Edison Company (petitioner or SCE) filed a Petition (Mountainview 2017) with the California Energy Commission (Energy Commission) requesting approval to replace the carbon monoxide (CO) air pollution emissions control catalysts at the Mountainview Generating Station (Mountainview). Mountainview is a nominal 1,056 megawatt (MW) combined-cycle electricity generating facility consisting of two generating units, Unit 3 and Unit 4. Units 3 and 4 each include two 167 gross MW General Electric (GE) 7FA combustion turbines and one 209 MW GE D11 steam turbine. The combustion turbines are equipped with dry low NO_x combustors, evaporative air cooling, and heat recovery steam generators. The combustion turbine units exhaust to selective catalytic reduction and oxidation catalysts.

Mountainview is located on a 54.3 acre parcel in the city of Redlands in San Bernardino County in the South Coast Air Basin (SCAB). The Energy Commission Decision approving Mountainview was adopted on March 21, 2001. Construction of the plant began in September 2001. Construction was suspended, but recommenced in March 2004 and commercial operation began December 2005. The Air Quality Conditions of Certification were amended in July 2001, September 2001, January 2002, September 2004, July 2006, and March 2016, to include multiple project refinements to equipment, operation, testing and reporting, including most recently a hot gas path upgrade.

SCE is proposing to replace all four carbon monoxide (CO) oxidation catalysts serving the combustion turbines during an upcoming planned maintenance outage currently scheduled for October 2017. The current catalyst beds are approaching the end of their expected life cycle and replacement is needed to ensure the equipment continues to meet emission requirements.

Energy Commission staff reviewed the proposal and determined the Air Quality Conditions of Certifications would need to be amended and therefore the petition would require Commission approval at a Business Meeting. SCE is proposing to install CO catalysts with increased capacity which would increase CO emission removal efficiency and accommodate the additional plant capacity from the recent hot gas path upgrade. The CO catalyst capacity is listed in the equipment description in the Air Quality Conditions of Certification. The equipment description would need to be updated to reflect the change to the catalyst volume. To verify the CO catalysts are installed and working properly, additional Air Quality Conditions of Certification are also being proposed.

An application was submitted to the South Coast Air Quality Management District (SCAQMD) on May 5, 2017 for the replacement of the CO catalysts. The SCAQMD Title V analysis is currently in process. The requested changes trigger a 45-day United States Environmental Protection Agency (U.S. EPA) regulatory review. The SCAQMD is requesting an expedited U.S. EPA review. SCE has indicated the CO catalyst would not be installed without prior approval from both the SCAQMD and U.S. EPA.

Staff has reviewed the draft analysis from the SCAQMD and the proposed minor revisions to the permit conditions. Minor revisions associated with the CO catalyst replacement include changes to the CO catalysts equipment descriptors, additional permit conditions for ongoing monitoring of the CO catalysts, and initial source testing requirements after the CO catalysts are installed. The SCAQMD is also proposing additional revisions to other permit conditions, specifically updates to the monitoring requirements for the turbine emission control equipment.

During the amendment review, staff noted inconsistencies with the SCAQMD permit conditions and Energy Commission Air Quality Conditions of Certification. Staff is proposing multiple changes to harmonize these inconsistencies and clarify Energy Commission requirements. These changes would better align the Title V permit and the Energy Commission license requirements. These changes would not increase any emission limit.

Staff concludes that air quality impacts from the proposed changes are less than significant, including impacts to environmental justice populations. No changes to project mitigation are being proposed, including emission reduction credits (ERCs) or Regional Clean Air Incentives Market (RECLAIM) trading credits. 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.

LAWS, ORDINANCES, REGULATIONS AND STANDARDS COMPLIANCE

SCAQMD reviewed the requested modifications and determined the changes would comply with their regulations. The Mountainview facility is considered a major source that requires a Title V operating permit and is subject to nitrogen oxide (NO_x) RECLAIM and prevention of significant deterioration (PSD) requirements. The proposed amendment is considered a minor permit revision under Title V and SCAQMD New Source Review (NSR) requirements. The amendment does not trigger a PSD review for any criteria pollutant and therefore does not trigger a review of PSD for greenhouse gas (GHG). The proposed amendment does not propose any changes to any emission limitation and therefore would not trigger any change to the NO_x RECLAIM requirements. Furthermore, the SCAQMD concluded there are no New Source Review implications for the requested changes.

Air Quality Table 1 includes a summary of the air quality laws, ordinances, regulations and standards (LORS) applicable to the Mountainview facility. The requested changes, and clarifications proposed by staff were evaluated by staff for consistency with the following LORS. The conditions of certification in the original 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)

<i>Applicable Law</i>	<i>Description</i>
Federal	U.S. Environmental Protection Agency (U.S. EPA)
Federal Clean Air Act Amendments of 1990 (FCAAA), Title 40 Code of Federal Regulations (CFR) Part 50	National Ambient Air Quality Standards (NAAQS).
40 CFR 60, Subpart Da	Standards of Performance for Boilers and Duct Burners. Establishes requirements for electric utility steam generators with heat inputs greater than 250 million British thermal units per hour (MMBtu/hr). The duct burners are rated at 135 MMBtu/hr and are not subject to this Subpart.
40 CFR 60, Subpart Db	Standards of Performance for Boilers and Duct Burners. Establishes requirements for electric utility steam generators with heat inputs greater than 100 MMBtu/hr. The duct burners are rated at 135 MMBtu/hr and are subject to this Subpart. Compliance with the 2.0 parts per million (ppm) best available control technology (BACT) limit demonstrates compliance with the NOx requirement. Continued compliance is expected.
40 CFR 60, Subpart GG	Standards of Performance for Stationary Combustion Turbines– Requires the turbines to meet emission standards. The applicable limits are 87.9 parts per million for NOx and 150 parts per million for sulfur oxide (SOx). Compliance through source testing has been demonstrated and continued compliance is expected.
40 CFR 60, Subpart KKKK	New Source Performance Standards (NSPS) for Stationary Gas Turbines – Establishes emission standards for turbines installed after February 18, 2005 with heat inputs greater than 10 MMBtu/hr. The turbines were installed prior to 2005 and are therefore not subject to this subpart.
40 CFR 60, Subpart UUUU	Emission Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units – Establishes emission guidelines and approval criteria for State or multi-State plans that address emission standards limiting GHG emissions from an affected units. The state plan has not been approved and therefore there are no currently applicable requirements. The facility will be required to comply with the plan if and when it becomes applicable.
40 CFR 63, Subpart YYYY	National Emission Standards for Hazardous Air Pollutants for Stationary Gas Turbines. This subpart establishes requirements for facilities that are major sources of hazardous air pollutants (HAPS). The facility is not considered a major source of HAPS since HAP emissions are less than the 25 ton/year threshold.

<i>Applicable Law</i>	<i>Description</i>
40 CFR 64	Compliance Assurance Monitoring (CAM)—CAM regulations apply to major stationary sources that use control equipment to achieve emission limits. The turbines are major sources for NOx, carbon monoxide (CO) and volatile organic compound (VOC) emissions. The turbines are subject to an emission limits for NOx, CO and VOC. Applicable BACT limits are met by using external control equipment consisting of selective catalytic reduction (SCR) and oxidation catalysts. Compliance for CO and NOx is demonstrated by continuous emission monitoring systems (CEMS). The oxidation catalyst also controls VOC emissions at specified temperatures (see discussion in analysis).
40 CFR 72	Permits Regulation -Part 72 establishes the Acid Rain Permit Program. The acid rain program 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. Mountainview is subject to the acid rain program. The 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 §41700 (Nuisance Regulation)	Prohibits discharge of such quantities of air contaminants that cause injury, detriment, nuisance, or annoyance.
California Health & Safety Code 40910-40930	Permitting of source needs to be consistent with approved clean air plan.
California Code of Regulations	Greenhouse Gases Emission Performance Standard (EPS), Article 1 –Provisions Applicable to Power Plants 10 MW and Larger (SB1368) —The facility is considered a deemed-compliant powerplant.
Local	South Coast Air Quality Management District (SCAQMD)
Regulation I General Provisions Rule 118	Emergencies—Establishes the ability for the SCAQMD to suspend District rules, regulations or orders during a state or federally declared State of Emergency.
Regulation II Permits Rules 201, 202 and 203	Permit to Construct, Temporary Permit to Operate, Permit to Operate. Written authorizations shall be obtained prior to the use or replacement of any equipment which may eliminate, reduce or control air contaminants. The permit to construct serves as a temporary permit to operate prior to the issuance of the final permit.
Regulation II Permits Rules 204	Permit Conditions—Establishes the ability for the SCAQMD to impose conditions on any permit as needed to assure compliance with all applicable regulations.
Regulation II Permits Rule 217	Provisions For Sampling and Testing Facilities—Establishes requirements for providing and maintaining facilities needed for sampling and testing.

<i>Applicable Law</i>	<i>Description</i>
Regulation II Permits Rule 218	Continuous Emission Monitoring (CEM)—Establishes requirements for CEMS. Only the CO CEMS is subject to Rule 218 requirements. Each turbine is already operating with compliant CEMS. Retention of record and reporting requirements are followed. Continued compliance is expected.
Regulation II Permits Rule 219	Equipment Not Requiring A Written Permit Pursuant to Regulation II—Exempts categories of equipment from requiring a SCAQMD permit. Categories include abrasive blasting and coating equipment.
Regulation IV Prohibitions Rule 401	Visible Emissions—Establishes limits on visible emissions. Visible emissions are not expected from Mountainview. SCAQMD reviewed their compliance database. SCAQMD noted two complaints filed by the same complainant regarding the appearance of increased emissions during rainy days. SCAQMD indicated the increase was most likely steam caused by heavy condensation on wet rainy days.
Regulation IV Prohibitions Rule 402	Nuisance—Prohibits the discharge of air contaminants or other material which could detrimentally impact the public. Mountainview uses ammonia for the SCR. The facility maintains a 5.0 ppm ammonia slip level. Nuisance problems are not expected from Mountainview under normal operations.
Regulation IV Prohibitions Rule 403	Fugitive Dust-Requires the prevention, reduction or mitigation of fugitive dust emission from project sites.
Regulation IV Prohibitions Rule 404	Particulate Matter Concentration—Restricts discharging of particulate matter in excess of 0.196 grain per cubic foot. Turbines combusting gaseous or liquid fuels are exempt from these requirements.
Regulation IV Prohibitions Rule 405	Solid Particulate Matter-Weight—Establishes requirement for particulate emissions by process weight.
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 subject to a more stringent CO emission limit of 6 ppmvd (ppmv dry) at 15 percent oxygen (% O ₂), meeting this rule.
Regulation IV Prohibitions Rule 408	Fugitive Dust-Requires the prevention, reduction or mitigation of fugitive dust emission from project sites.
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 . Source testing data indicates compliance below the rule 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.

<i>Applicable Law</i>	<i>Description</i>
Regulation IV Prohibitions Rule 431.2	Sulfur Content of Liquid Fuels—Limits the sulfur concentration to 0.05 percent by weight in liquid fuels (diesel). Prohibits the purchase of diesel fuel with a sulfur content greater than 15 ppm by weight.
Regulation IV Prohibitions Rule 475	Electric Power generating Equipment—Limits combustion contaminants to 11 pounds per hour (lbs/hr) or 0.01 grains per standard cubic feet (gr/scf) for power generating equipment greater than 10 MW. Continued compliance is expected.
Regulation VII Emergencies Rule 701	Air Pollution Emergency Contingency Actions—Establishes requirements during air pollution episodes.
Regulation XI Source Specific Standards Rule 1110.2	Emissions From Gaseous- and Liquid-Fueled Engines—This regulation established NOx, VOC and CO emission limits for stationary and portable engines over 50 brake horsepower (BHP) in rated capacity.
Regulation XI Source Specific Standards Rule 1113	Architectural Coatings—This regulation limits the VOC content of architectural coatings used in the SCAQMD.
Regulation XI Source Specific Standards Rule 1140	Abrasive Blasting—This regulation establishes requirements for abrasive blasting.
Regulation XI Source Specific Standards Rule 1171	Solvent Cleaning Operations—This regulation establishes requirements to limit VOCs, toxic air contaminants, and stratospheric ozone-depleting or global warming compound from solvent cleaning operations.
Regulation XIII New Source Review	New Source Review for Criteria Pollutants—This regulation applies to new or modified sources that have increased emissions. The the emission limits will remain unchanged from the CO catalyst upgrade.
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. The CO catalyst replacement is not considered a major modification.
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 proposed project has no emission increases and therefore does not have any associated increase in risk and is considered exempt from the rule requirements.
Regulation XIV Toxics and Other Non-Criteria Pollutants Rule 1404	Hexavalent Chromium Emissions from Cooling Towers—Specifies requirements for hexavalent chromium concentrations in circulating cooling water tower.
Regulation XIV Toxics and Other Non-Criteria Pollutants Rule 1470	Requirements For Stationary Diesel-Fueled Internal Combustion And Other Compression Ignition Engines—Specifies fuel and operation requirements for compression ignitions engines operation.

<i>Applicable Law</i>	<i>Description</i>
Regulation XVII Prevention of Significant Deterioration (PSD)	Prevention of Significant Deterioration—Establishes requirements for attainment emissions. SCAB is in attainment for nitrogen dioxide (NO ₂), SO ₂ , CO and particulate matter less than ten microns (PM ₁₀) national ambient air quality standards. SCAQMD has partial delegation of PSD authority from the U.S. EPA depending on the calculation methodology and plant wide applicability limits. This project does not trigger a PSD review.
Regulation XVII Prevention of Significant Deterioration (PSD) Rule 1714	Prevention of Significant Deterioration (PSD) for Greenhouse Gases (GHGs)— A PSD permit for greenhouse gases is not required for this project.
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. No emission increases are associated with the proposed amendment and the turbines currently meet BACT requirements.
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 minor permit revision and requires a 45-day U.S. EPA review. The facility has requested an expedited review.

SETTING

Mountainview is located in the city of Redlands, San Bernardino County, and is part of the SCAB. 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 SCAB. 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
PM_{2.5}	Nonattainment	Nonattainment

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

Note: Updated August 2017

ANALYSIS

The SCAQMD provided the Energy Commission with a draft engineering evaluation for the proposed replacement of the CO catalyst. The SCAQMD is proposing the following changes to the Title V permit for Mountainview:

- The addition of appropriate operating ranges for the ammonia flow, exhaust temperature and differential pressure for the SCR.
- Consolidating the definitions for continuous recording and monitoring into the specific conditions for the SCR.
- The addition of two new conditions requiring temperature and differential pressure monitoring for the proposed CO catalyst.
- The addition of a new condition requiring a one-time CO source test after the installation of the new oxidation catalyst.

Staff is proposing to incorporate these same changes to the Mountainview Air Quality Conditions of Certification. These changes are discussed in more detail below. Staff notes that language specific to these changes has not yet been finalized. Staff discussed these conditions with SCAQMD staff and there is the possibility that minor language changes may be made to these conditions prior to the finalization of the SCAQMD permit. Staff is not expecting any major changes to the conditions provided by the SCAQMD as they are standard conditions for emission control equipment.

Staff is also proposing additional changes to update the Air Quality Conditions of Certification applicable to ongoing operation with the current requirements to ensure the facility operates in compliance with all LORS.

Staff is proposing to define the South Coast Air Quality Management District as AQMD or District to identify the appropriate facility permitting agency in the conditions of certification. Staff is proposing to update the acronyms used for ARB and U.S. EPA to current Energy Commission practice.

The Mountainview Air Quality Conditions of Certification contain a detailed description of the energy generating components. The descriptions include operational parameters such as heat rates and generating capacities and form the basis of the environmental analysis. These equipment descriptions are enforceable parts of the license and must be updated if the equipment or operation of the equipment changes outside the parameters included in the descriptions. The equipment descriptions also include identifiers that link the units to emission and reporting requirements and provide a road map to the licensed equipment configuration. Staff is proposing to update the equipment descriptions to reflect the changes to the emission control equipment.

Staff is proposing to update the format of the equipment descriptions and equipment identifiers. Staff is proposing to move the information from paragraph form into a table between the **AQ-C** series Conditions of Certification and the **AQ**-numbered Conditions of Certification. For Mountainview, the **AQ-C** condition series are for construction and the **AQ**-numbered series are for facility operations. A header will be added identifying the conditions. This format is consistent with more recent projects in the SCAQMD.

The SCAQMD has a unique system of structuring and numbering permit conditions. In order for the reader to avoid confusion between the SCAQMD numbering and Energy Commission numbering, a table is proposed for inclusion in the conditions of certification that cross references the conditions in the SCAQMD permit to the conditions in the license and subsequent amendments approved and proposed. This format is consistent with more recent Energy Commission projects in the SCAQMD.

Staff is proposing to add the SCAQMD rule citations to each corresponding condition of certification to clarify the basis of each requirement. Many of these rule citations include PSD requirements. There was a period of time when the SCAQMD did not have authority over PSD permitting. During this time period, conditions were added by the U.S. EPA. When SCAQMD regained authority over PSD permitting, they revised many permit conditions and retained the PSD conditions and citations which subsumed the SCAQMD rules and regulations. At this time, the SCAQMD is designated by the U.S. EPA to enforce these conditions. These conditions are therefore subject to licensing requirements. Additionally, staff is proposing to add the specific device identifiers to each condition of certification in order to clearly identify which equipment is applicable to each condition. These changes would provide a more accurate accounting of the facility equipment and requirements.

Staff is proposing to delete Condition of Certification **AQ-1**. Condition of Certification **AQ-1** is only applicable to construction and commissioning periods and is no longer relevant.

Staff is proposing the addition of Conditions of Certification **AQ-1a**, **AQ-1b**, and **AQ-1c**. These are general conditions included in the SCAQMD Title V operating permit requiring compliance with applicable federal requirements. These conditions would not impose any new requirement for Mountainview.

Staff is proposing additional clarifying language to Condition of Certification **AQ-2**. The proposed changes include adding an ammonia emission limit of 5.0 ppm to the condition and clarifying the limit is averaged over 60 minutes, consistent with the SCAQMD BACT limit for Mountainview. An emission limit of 5 ppm (not 5.0 ppm) is currently included Condition of Certification **AQ-11** and does not include an averaging period.

Staff is proposing to update the language and requirements in Condition of Certification **AQ-3** for consistency with the proposed changes to the corresponding SCAQMD permit condition. Condition of Certification **AQ-3** is applicable to the selective catalytic reduction (SCR) emission control device used to control NOx. The SCR uses ammonia as a reductant. The SCAQMD is proposing to add clarifying language on the definition of continuous monitoring and the effective operating range for the ammonia injection system. The effective range was provided by SCE and will be included in the current revision to the Title V permit. In addition, staff is proposing to change the time between calibrations from 12 months to 13 months, consistent with the changes made to the SCAQMD permit requested by SCE in 2014.

Staff is proposing to update the language and requirements in Condition of Certification **AQ-4** for consistency with the proposed changes to the corresponding SCAQMD permit condition. Condition of Certification **AQ-4** is also applicable to the SCR emission control device used to control NOx. The SCR uses ammonia as a reductant. Condition of

Certification **AQ-4** currently requires a temperature gauge to measure and record the temperature in the SCR catalyst. The proposed updates include clarifying language on the definition of continuous monitoring and recording and the addition of an effective temperature range for the SCR. The effective temperature range was provided by SCE. In addition, staff is proposing to change the time between calibrations from 12 months to 13 months consistent with the changes made to the SCAQMD permit requested by SCE in 2014.

Staff is proposing the addition of Condition of Certification **AQ-4a**. Condition of Certification **AQ-4a** would include a requirement for a pressure gauge to measure the differential pressure across the SCR catalyst bed. The pressure gauge requirement is currently in Condition of Certification **AQ-4**. However, staff is proposing to move the requirement to a new condition and to add additional clarifying language and requirements consistent with the proposed changes to the corresponding SCAQMD permit condition. The proposed updates include clarifying language on the definition of continuous monitoring and recording and the addition of an effective differential pressure range across the SCR. The effective differential pressure range was provided by SCE.

Staff is proposing the addition of Conditions of Certification **AQ-4b** and **AQ-4c**. Condition of Certification **AQ-4b** would include a requirement for a pressure gauge to measure the differential pressure across the CO catalyst bed. Condition of Certification **AQ-4c** would include a requirement for a temperature gauge to measure the temperature of the CO catalyst bed. There is currently no pressure gauge requirement for the CO catalyst in the conditions of certification. However, the CO oxidation catalyst controls CO and VOC emissions. The oxidation catalyst is used to control the VOC emissions in order to meet the BACT VOC emission limit. 40 CFR Part 60 CAM regulations apply to major stationary sources using control equipment to achieve a specified emission limit and have emissions that meet the major source threshold on a pre-control basis. The rule requires 'reasonable assurance' that control systems are properly functioning to maintain compliance with emission limits. Continuous emission monitoring systems used to demonstrate compliance with an emission limit are exempt from CAM requirements. There is no continuous monitoring system for VOC and therefore additional monitoring requirements are being proposed to ensure the BACT requirements are met. The proposed language includes the recording and monitoring requirements. The proposed language would specify effective differential pressure range across the CO catalyst and the effective temperature range. The effective differential pressure and temperature ranges were provided by SCE.

SCE noted that while they intend to install the CO catalyst during the upcoming planned maintenance outage, they may not have the monitoring and recording devices required by Conditions of Certification **AQ-4b** and **AQ-4c** installed and functioning until a later date. The SCAQMD process would require a permit to construct to be issued prior to the replacement of the CO catalyst. The permit to construct acts as a temporary operating permit until a final permit to operate is granted. Typically the permit to construct is valid for a year. This allows time after the issuance of a permit to construct for a facility to come into compliance with the proposed changes. The final permit to operate would not be issued prior to the demonstration of compliance with the condition. The Mountainview facility still has a 180-day requirement to perform a CO source test after the permit to construct is issued, to ensure the CO catalyst is operating properly. In

order to accommodate the time needed to fully comply with the proposed requirements, staff is proposing language identifying the compliance date in the verification.

Staff is proposing additional clarifying language to Conditions of Certification **AQ-5** and **AQ-6**. Condition of Certification **AQ-5** includes requirements for the CO CEMS and **AQ-6** includes requirements for the NO_x CEMS. The additional language is intended to ensure the CEMS are operating and maintained in compliance with all LORS. These requirements are already imposed by the SCAQMD.

Staff is proposing to update the language and requirements in Condition of Certification **AQ-10**. Condition of Certification **AQ-10** includes requirements for startup, shutdown, and combustor tuning activities. Staff is proposing to reorganize the requirements for improved clarity. Condition of Certification **AQ-10** currently provides a limited definition for shutdown activities and does not clearly state the duration for shutdown events. Additional language is being proposed to clearly define the shutdown duration requirement. A NO_x emission limitation for a turbine during a shutdown event is also being proposed along with a total hourly limitation for startup and shutdown events on an annual basis. Additional NO_x emission limitations are also being proposed for startup and cold startup events. These requirements are already imposed by the SCAQMD.

Staff is proposing minor clarifications to Conditions of Certification **AQ-11** and **AQ-12**. Staff is also proposing to remove an outdated commissioning requirement for the CO CEMS.

Staff is proposing the addition of new Condition of Certification **AQ-12a**. Condition of Certification **AQ-12a** would add a daily NO_x emission requirement based on the combined operation of all four turbines. This requirement is already imposed by the SCAQMD.

Staff is proposing to clarify the facility source testing requirements. Staff is proposing to re-organize testing requirements currently contained in Conditions of Certification **AQ-15**, **AQ-16**, and **AQ-17**. Currently **AQ-15** includes a list of all the pollutants and testing requirements for pollutants with source testing requirements. Condition of Certification **AQ-15** also describes general procedures for source testing. The ongoing testing procedures currently included in Condition of Certification **AQ-15** should only be applicable to SO_x, VOC and PM₁₀. In addition the testing requirements included in Condition of Certification **AQ-16** are only relevant to ongoing ammonia testing. Therefore, staff is proposing to only include the testing requirements for SO_x, VOC and PM₁₀ in Condition of Certification **AQ-15**. Staff is proposing to move the ongoing source testing requirements specific for ammonia testing to Condition of Certification **AQ-16**. Staff is proposing to revise Condition of Certification **AQ-17** to clarify testing requirements specific to PM₁₀. Staff is proposing to move all NO_x testing requirements from Condition of Certification **AQ-15** to new Condition of Certification **AQ-17a**. Staff is proposing clarifying language changes to these conditions to update the testing frequency and loads. These clarifications should provide better consistency between the emission limitations and compliance demonstrations for the regulating agencies.

Staff is also proposing the addition of Conditions of Certification **AQ-17b** and **AQ-17c**. Condition of Certification **AQ-17b** would include an additional initial source testing requirement for CO after the CO catalyst is replaced. This testing requirement would ensure the catalyst is properly functioning as intended. Condition of Certification **AQ-**

17c would include general source testing requirements applicable to all source tests. Including these requirements in one condition would clarify the testing requirements.

Staff is proposing minor language clarifications to Conditions of Certification **AQ-18** and **AQ-24**. The changes will clarify the requirements for diesel fuel usage for the emergency power and fire pump engines. The requirements for diesel fuel applicable to the facility is now included in proposed Conditions of Certification **AQ-43** and **AQ-44** (see discussion below).

Staff is proposing the addition of new Condition of Certification **AQ-19a**. Condition of Certification **AQ-19a** would add requirements for the diesel particulate filter used to comply with BACT requirements. The condition would include specific criteria for the filter system installation and operation. These requirements are already imposed by the SCAQMD.

Staff is proposing to update the language in Condition of Certification **AQ-21**. The change includes the addition of record keeping requirements for diesel particulate filters. The addition of a requirement limiting the total hours of operation for a calendar year is also being proposed in order to determine compliance with the operating limitations. These requirements are already imposed by the SCAQMD.

Staff is noting a typo was made in Appendix A to the Air Quality analysis in the 2016 Mountainview amendment. The clean version of the Air Quality Conditions of Certification included a typo in Condition of Certification **AQ-23**. No change was discussed in the amendment or included as strikeout underline language. No change was intended by staff or approved by the order.

Staff is proposing to update the language in Condition of Certification **AQ-27**. The proposed change includes the addition of a requirement to total the hours of operation for a calendar year in order to determine compliance with the operating limitations. This limitation is already imposed by the SCAQMD.

Staff is proposing to update the language in Condition of Certification **AQ-28**. The proposed change includes the addition of a requirement limiting the time the diesel fire pump engine can be operated for maintenance and testing purposes annually. This limitation is already imposed by the SCAQMD.

Staff is proposing the addition of Condition of Certification **AQ-39**. Condition of Certification **AQ-39** includes requirements for the facility's dry storage equipment. The equipment already exists at the facility and the operation requirements are already included in the SCAQMD Title V permit.

Staff is proposing the addition of Conditions of Certification **AQ-40**, **AQ-41** and **AQ-42**. These conditions would be applicable to abrasive blasting operations and are general conditions included in the SCAQMD Title V permit. Abrasive blasting is commonly performed during maintenance at power facilities. These are general conditions to ensure any abrasive operations performed would be compliant with LORS.

Staff is proposing the addition of Condition of Certification **AQ-43**. Condition of Certification **AQ-43** is a general facility condition including Ringelmann and opacity

requirements. Condition of Certification **AQ-43** would be applicable to any emission source at the facility and is included in other power projects in the SCAQMD.

Staff is proposing the addition of Conditions of Certification **AQ-44** and **AQ-45** to update the diesel fuel use and purchase requirements to clarify state and federal requirements for diesel usage for the entire facility. There is no change to the current sulfur content requirements already included in the Mountainview Conditions of Certification **AQ-18** and **AQ-24** pertaining to the diesel engine operation.

Staff is proposing the addition of Condition of Certification **AQ-46**. Condition of Certification **AQ-46** is a general condition with requirements for architectural coating applications. Architectural coatings are commonly used at power facilities for maintenance and other operations. The condition would be required for architectural coating applications and is included in other power projects in the SCAQMD.

CONCLUSIONS AND RECOMMENDATIONS

Energy Commission staff recommends approval of the requested replacement of the CO catalyst and the proposed changes to the Air Quality Conditions of Certification for Mountainview. These requested changes are considered minor changes and would not require an increase in any emission limit. The proposed changes would 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 and a draft Title V permit incorporating the CO catalyst replacement is currently in review.

PROPOSED AND AMENDED CONDITIONS OF CERTIFICATION

Staff recommends the following modifications to the conditions of certification. **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 Mountainview follows the strikeout underline text in Appendix A.

The SCAQMD has a unique system of structuring and numbering permit conditions. In order for the reader to avoid confusion between the SCAQMD numbering and Energy Commission numbering, a table is included in the conditions of certification that cross references the conditions in the SCAQMD permit to the conditions in the license and subsequent amendment as proposed.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD, AQMD OR DISTRICT) PERMIT CONDITIONS WITH CORRESPONDING ENERGY COMMISSION CONDITIONS OF CERTIFICATION:

<u>SCAQMD Permit Conditions</u>	<u>Energy Commission Conditions of Certification</u>	<u>Condition Description</u>
<u>A63.2</u>	<u>AQ-12</u>	<u>Monthly contaminant emission limits (CO, VOC, PM10, nd SOx). Includes emissions calculations equations and emission factors.</u>

<u>SCAQMD Permit Conditions</u>	<u>Energy Commission Conditions of Certification</u>	<u>Condition Description</u>
<u>A63.3</u>	<u>AQ-12</u>	<u>Daily contaminant emission limit (CO) from CEMS or equation.</u>
<u>A63.4</u>	<u>AQ-12a</u>	<u>Daily contaminant emission limit (NOx) for turbines combined.</u>
<u>A99.2</u>	<u>AQ-10, 11</u>	<u>NOx emission limit of 2.0 ppm does not apply during startup, and shutdown periods. Startup limited to 4 hours, cold start up 6 hours, and shutdowns 0.5 hours per event.</u>
<u>A99.3</u>	<u>AQ-10, 11</u>	<u>CO emission limit of 6.0 ppm does not apply during startup, and shutdown periods. Startup limited to 4 hours, cold start up 6 hours, and shutdowns 0.5 hours per event.</u>
<u>A195.1</u>	<u>AQ-11</u>	<u>NOx emission limit of 2.0 ppm @ 15% O₂ averaged over 1-hour with specified exceptions.</u>
<u>A195.2</u>	<u>AQ-11</u>	<u>CO emission limit of 6.0 ppm @ 15% O₂ averaged over 1-hour.</u>
<u>A195.4</u>	<u>AQ-2, 11</u>	<u>Ammonia limit of 5.0 ppmv @ 15% O₂ averaged over 1-hour. Included SCAQMD equation and Energy Commission method for calculating slip.</u>
<u>A327.1</u>	<u>AQ-14</u>	<u>Under Rule 475; project may violate either the mass emission limit or concentration emission limit, but not both at the same time.</u>
<u>A433.1</u>	<u>AQ-10</u>	<u>Startup NOx emissions limits.</u>
<u>A433.2</u>	<u>AQ-10</u>	<u>Startup, tuning, and shutdown NOx emission limits.</u>
<u>B61.1</u>	<u>AQ-18, 24</u>	<u>Diesel fuel sulfur content limited to 15 ppm by weight.</u>
<u>C1.1</u>	<u>AQ-28</u>	<u>Limit fire pump engine operation to 199 hours per year, no more than 34 hours for maintenance and testing.</u>
<u>C1.1</u>	<u>AQ-26</u>	<u>Install and maintain non-resettable time meter.</u>
<u>C1.2</u>	<u>AQ-23</u>	<u>Limit emergency engine operation to 200 hours per year, no more than 50 hours for maintenance and testing.</u>
<u>C1.2</u>	<u>AQ-20</u>	<u>Install and maintain non-resettable time meter.</u>
<u>C1.1</u>	<u>AQ-22</u>	<u>Operation is limited to loss of grid power, emergency operation, or prior to rotating outage.</u>
<u>C157.1</u>	<u>AQ-38</u>	<u>Storage tank pressure relief valve set to 25 psig.</u>
<u>C177.2</u>	<u>AQ-25</u>	<u>Fuel injection timing set to 9.7 degrees retarded relative to standard timing for fire pump engine.</u>

<u>SCAQMD Permit Conditions</u>	<u>Energy Commission Conditions of Certification</u>	<u>Condition Description</u>
<u>D12.3</u>	<u>AQ-3</u>	<u>Requires a flow meter to monitor ammonia injection.</u>
<u>D12.4</u>	<u>AQ-4</u>	<u>Requires a temperature gauge for the SCR.</u>
<u>D12.5</u>	<u>AQ-4a</u>	<u>Requires a pressure gauge for the SCR.</u>
<u>D12.6</u>	<u>AQ-4b</u>	<u>Requires a pressure gauge for the CO catalyst.</u>
<u>D12.7</u>	<u>AQ-4c</u>	<u>Requires a temperature gauge for the CO catalyst.</u>
<u>D29.2</u>	<u>AQ-15</u>	<u>Initial and ongoing source testing requirements.</u>
<u>D29.3</u>	<u>AQ-16</u>	<u>Initial and ongoing ammonia source testing requirements.</u>
<u>D29.4</u>	<u>AQ-17b</u>	<u>Source testing requirement for CO catalyst.</u>
<u>D82.1</u>	<u>AQ-5</u>	<u>CEMS CO monitoring and reporting requirements.</u>
<u>D82.2</u>	<u>AQ-6</u>	<u>CEMS NOx monitoring and reporting requirements.</u>
<u>D182.1</u>	<u>AQ-17a</u>	<u>Source testing for NOx.</u>
<u>D322.1</u>	<u>AQ-41</u>	<u>Annual inspection of applicable equipment.</u>
<u>D372.1</u>	<u>AQ-17</u>	<u>Source testing for PM.</u>
<u>D381.1</u>	<u>AQ-40</u>	<u>Visible emissions requirements for abrasive blasting.</u>
<u>E57.1</u>	<u>AQ-9</u>	<u>Vent to emission control when in operation.</u>
<u>E144.1</u>	<u>AQ-37</u>	<u>Venting limitation for ammonia storage tank.</u>
<u>E193.1</u>	<u>AQ-6a</u>	<u>NOx data acquisition system requirements for turbines.</u>
<u>E193.2</u>	<u>AQ-19a</u>	<u>Emission control requirements for emergency power engine.</u>
<u>E193.3</u>	<u>AQ-1a</u>	<u>Requires compliance with applicable regulations.</u>
<u>E193.4</u>	<u>AQ-1b</u>	<u>Requires equipment maintenance.</u>
<u>E193.5</u>	<u>AQ-37</u>	<u>Emission control requirements for silo.</u>
<u>F9.1</u>	<u>AQ-43</u>	<u>Equipment Ringelmann and opacity requirements.</u>
<u>F14.1</u>	<u>AQ-44</u>	<u>Diesel use sulfur content requirements.</u>
<u>F14.2</u>	<u>AQ-45</u>	<u>Diesel purchase requirements.</u>
<u>H23.3</u>	<u>AQ-31</u>	<u>Prohibits use of hexavalent chromium containing compounds in the cooling tower water.</u>
<u>H23.4</u>	<u>AQ-1c</u>	<u>Outlines federal requirements.</u>
<u>I298.1</u> <u>I298.10</u>	<u>AQ-36</u>	<u>Outlines Reclaim Trade Credit requirements.</u>
<u>K40.1</u>	<u>AQ-17c</u>	<u>Source testing recordkeeping and reporting.</u>
<u>K67.1</u>	<u>AQ-42</u>	<u>Inspection and maintenance requirements.</u>

<u>SCAQMD Permit Conditions</u>	<u>Energy Commission Conditions of Certification</u>	<u>Condition Description</u>
<u>K67.2</u>	<u>AQ-46</u>	<u>Record keeping requirements for architectural coatings.</u>
<u>K67.3</u>	<u>AQ-27</u>	<u>Record keeping requirements for fire pump engine.</u>
<u>K63.4</u>	<u>AQ-10</u>	<u>Outlines monitoring and record keeping requirements for turbines.</u>
<u>K67.5</u>	<u>AQ-21</u>	<u>Record keeping requirements for emergency power engine.</u>
<u>K171.1-3</u>	<u>NA</u>	<u>PSD U.S. EPA notification requirements.</u>
<u>NA</u>	<u>AQ-29, 30, 32, 33, 34, 35</u>	<u>Cooling tower requirements.</u>

CONSTRUCTION CONDITIONS

EQUIPMENT

<u>ID No.</u>	<u>Equipment Descriptions</u>
<u>Internal Combustion – Power Generation</u>	
<u>Unit 3-1</u>	
<u>D18</u>	<u>General Electric Model 7FA.04, No. 3A, combined-cycle natural Gas Turbine, 1,991 million British thermal units per hour (mmBtu/hr) at 30 degrees Fahrenheit, with dry low NOx combustors DLN 2.6+, connected directly to a 177.1 megawatt (MW) (gross output at 59 degrees Fahrenheit) Electric Generator, Heat Recovery Steam Generator and 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model 211, Steam Turbine Generator (common with turbine 3B). Connected to C23, C24 and S26.</u>
<u>D21</u>	<u>Duct Burner -135 mmBtu/hr, Connected to C23, C24 and S26.</u>
<u>C23</u>	<u>CO Oxidation Catalyst, No. 3-1, with 185 cubic feet of total catalyst volume Connected to D18 and D21.</u>
<u>C24</u>	<u>Selective Catalytic Reduction, No. 3-1, with 2,750 cubic feet of total catalyst volume, 72 feet height, 1.5 feet long, 25.5 feet wide, with an ammonia injection grid. Connected to D18 and D21.</u>
<u>S26</u>	<u>Stack No. 3A, height of 200 feet and diameter of 18 feet. Connected to D18 and D21.</u>
<u>Unit 3-2</u>	
<u>D27</u>	<u>General Electric Model 7FA.04, No. 3B, combined-cycle natural Gas Turbine, 1,991 mmBtu/hr at 30 degrees Fahrenheit, with dry low NOx combustors DLN 2.6+, connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator, Heat Recovery Steam Generator and 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model 211, Steam Turbine Generator (common with</u>

	<u>turbine 3A). Connected to C32, C33 and S35.</u>
<u>D30</u>	<u>Duct Burner -135 mmBtu/hr, Connected to C32, C33 and S35.</u>
<u>C32</u>	<u>CO Oxidation Catalyst, No. 3-2, with 185 cubic feet of total catalyst volume Connected to D27 and D30.</u>
<u>C33</u>	<u>Selective Catalytic Reduction, No. 3-2, with 2,750 cubic feet of total catalyst volume, 72 feet height, 1.5 feet long, 25.5 feet wide, with an ammonia injection grid. Connected to D27 and D30.</u>
<u>S35</u>	<u>Stack No. 3B, height of 200 feet and diameter of 18 feet. Connected to D27 and D30.</u>
Unit 4-1	
<u>D36</u>	<u>General Electric Model 7FA.04, No. 4A, combined-cycle natural Gas Turbine, 1,991 mmBtu/hr at 30 degrees Fahrenheit, with dry low NOx combustors DLN 2.6+, connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator, Heat Recovery Steam Generator and 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model 211, Steam Turbine Generator (common with turbine 3A). Connected to C41, C42 and S44.</u>
<u>D39</u>	<u>Duct Burner -135 mmBtu/hr, Connected to C41, C42 and S44.</u>
<u>C41</u>	<u>CO Oxidation Catalyst, No. 4-1, with 185 cubic feet of total catalyst volume Connected to D36 and D39.</u>
<u>C42</u>	<u>Selective Catalytic Reduction, No. 4-1, with 2,750 cubic feet of total catalyst volume, 72 feet height, 1.5 feet long, 25.5 feet wide, with an ammonia injection grid. Connected to D36 and D39.</u>
<u>S44</u>	<u>Stack No. 4A, height of 200 feet and diameter of 18 feet. Connected to D36 and D39.</u>
Unit 4-2	
<u>D45</u>	<u>General Electric Model 7FA.04, No. 4B, combined-cycle natural Gas Turbine, 1,991 mmBtu/hr at 30 degrees Fahrenheit, with dry low NOx combustors DLN 2.6+, connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator, Heat Recovery Steam Generator and 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model 211, Steam Turbine Generator (common with turbine 3A). Connected to C50, C51 and S53.</u>
<u>D48</u>	<u>Duct Burner -135 mmBtu/hr, Connected to C50, C51 and S53.</u>
<u>C50</u>	<u>CO Oxidation Catalyst, No. 4-2, with 185 cubic feet of total catalyst volume Connected to D45 and D48.</u>
<u>C51</u>	<u>Selective Catalytic Reduction, No. 4-2, with 2,750 cubic feet of total catalyst volume, 72 feet height, 1.5 feet long, 25.5 feet wide, with an ammonia injection grid. Connected to D45 and D48.</u>
<u>S53</u>	<u>Stack No. 4B, height of 200 feet and diameter of 18 feet. Connected to D45 and D48.</u>
Internal Combustion – Diesel Engines	
<u>D58</u>	<u>Internal Combustion Engine, emergency fire pump, diesel Clarke Model JW6H-UF60, lean burn, fuel injection timing retard, turbocharged, aftercooled, 375 brake horsepower (BHP).</u>
<u>D61</u>	<u>Internal Combustion Engine, emergency power, diesel Caterpillar 3512B, turbocharged, aftercooled, 2,155 BHP.</u>
Cooling Towers	
<u>E17</u>	<u>Cooling Towers, two cooling towers serving Units 3 and 4. Each have 147,000 gallon per minute capacity, 10 cells, two rows side-by-side, drft rate of 0.0006 percent and are forced vent.</u>

Storage Tanks	
D60	<u>Storage Tank, TK-3, 19 percent aqueous ammonia, 36,000 gallon, serving SCRs 3-1, 3-2, 4-1 and 4-2, with a vapor return line.</u>
Dry Storage	
D63	<u>Storage Silo, soda ash, 5,000 cubic feet, passive filter, 14 cartridges, 250 square feet of filter area, height of 60 feet and diameter of 12 feet.</u>
D64	<u>Tank, soda ash mixing, fully enclosed, 600 gallons, height of 5 feet and diameter of 5 feet.</u>
D65	<u>Unloading Station, one pneumatic hose.</u>
Other Provisions	
E14	<u>Exempt Equipment: Abrasive Blasting Equipment.</u>
E16	<u>Exempt Equipment: Coating Equipment, Portable, Architectural Coatings.</u>

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO UNITS 3 AND 4 (D18, D21, C23, C24, S26, D27, D30, C32, C33, S35, D36, D39, C41, C42, S44, D45, D48, C50, C51, S53)THE FOLLOWING EQUIPMENT:

~~1,991 MMBTU/HR at 30 degrees Fahrenheit natural Gas Turbine No. 3A GE Model 7FA.04 with Dry Low NOx combustors DLN 2.6+ connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator and a Heat Recovery Steam Generator with 135 MMBTU/HR Duct Burners connected to a 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model D11 steam turbine (common with turbine 3B). Turbine 3A, the HRSG, and steam turbine are all identified as ID No. D18 (A/N 500208) and the duct burners are identified as ID No. D21 (A/N 578178). Equipment D18 and D21 are both connected to a CO oxidation catalyst, No. 3-1 (ID No. C23) (A/N 562528), with 240 cubic feet of total catalyst volume, Selective Catalytic Reduction, No. 3-2 (ID No. C24) (A/N 562528), with 2,750 cubic feet of total volume 72 feet height, 1.5 feet long, 25.5 feet wide with an ammonia injection grid, and share a common stack, Stack No. 3A (ID No. S26), with a height of 200 feet and diameter of 18 feet.~~

~~1,991 MMBTU/HR at 30 degrees Fahrenheit natural Gas Turbine No. 3B GE Model 7FA.04 with Dry Low NOx combustors DLN 2.6+ connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator and a Heat Recovery Steam Generator with 135 MMBTU/HR Duct Burners connected to a 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model D11 steam turbine (common with turbine 3A). Turbine 3B, the HRSG, and steam turbine are all identified as ID No. D27 (A/N 578179) and the duct burners are identified as ID No. D30 (A/N 578179). Equipment D27 and D30 are both connected to a CO oxidation catalyst, No. 3-2 (ID No. C32) (A/N 562529), with 240 cubic feet of total catalyst volume, Selective Catalytic Reduction, No. 3-2 (ID No. C33) (A/N 562529), with 2750 cubic feet of total volume 72 feet height, 1.5 feet long, 25.5 feet wide with an ammonia injection grid, and share a common stack, Stack No. 3B (ID No. S35), with a height of 200 feet and diameter of 18 feet.~~

~~1,991 MMBTU/HR at 30 degrees Fahrenheit natural Gas Turbine No. 4A GE Model 7FA.04 with Dry Low NOx combustors DLN 2.6+ connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator and a Heat Recovery Steam Generator with 135 MMBTU/HR Duct Burners connected to a 212.4 MW (gross output~~

~~at 59 degrees Fahrenheit) GE Model D11 steam turbine (common with turbine 4B). Turbine 4A, the HRSG, and steam turbine are all identified as ID No. D36 (A/N 578180) and the duct burners are identified as ID No. D39 (A/N 578180). Equipment D36 and D39 are both connected to a CO oxidation catalyst, No. 4-1 (ID No. C41) (A/N 562530), with 240 cubic feet of total catalyst volume, Selective Catalytic Reduction, No. 4-1 (ID No. C42) (A/N 562530), with 2750 cubic feet of total volume 72 feet height, 1.5 feet long, 25.5 feet wide with an ammonia injection grid, and share a common stack, Stack No. 4A (ID No. S44), with a height of 200 feet and diameter of 18 feet.~~

~~1,991 MMBTU/HR at 30 degrees Fahrenheit natural Gas Turbine No. 4B GE Model 7FA.04 with Dry Low NOx combustors DLN 2.6+ connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator and a Heat Recovery Steam Generator with 135 MMBTU/HR Duct Burners connected to a 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model D11 steam turbine (common with turbine 3B). Turbine 3A, the HRSG, and steam turbine are all identified as ID No. D45 (A/N 578181) and the duct burners are identified as ID No. D48 (A/N 578181). Equipment D45 and D48 are both connected to a CO oxidation catalyst, No. 4-2 (ID No. C50)(A/N 562531), with 240 cubic feet of total catalyst volume, Selective Catalytic Reduction, No. 4-2 (ID No. C51) (A/N 562531) with 2750 cubic feet of total volume 72 feet height, 1.5 feet long, 25.5 feet wide with an ammonia injection, and share a common stack, Stack No. 4B (ID No. S53), with a height of 200 feet and diameter of 18 feet.~~

AQ-1 ~~During the final phase of construction, the operator shall be allowed to exceed normal operational and startup emission limits and operational constraints (**AQ-9, AQ-10, AQ-11, AQ-12, AQ-13** and **AQ-14**) and will be subject only to the limit prescribed in this Condition so that the turbine systems and controls can be fine tuned. This phase of construction is referred to herein as initial commissioning. The commissioning period shall not exceed 1,272 combined operating hours per two gas turbine power block from the time of initial startup. The power block is defined as two gas turbines that are connected to the same steam turbine. The project owner shall provide the District and Energy Commission with written notification of the initial startup date within two weeks of the startup.~~

~~During the commissioning period and the interim reporting periods prior to the GEMS becoming validated by the District, the project owner shall report NOx emissions by using the recorded fuel use data and the assumed emission factor of 32.32 lbs/mmcf. Such record shall be made, kept and maintained on file for a minimum of five years and shall be made available to the District and the Energy Commission upon request. The facility log shall indicate the date, number of operating hours and fuel consumed for each turbine and duct burner during the commissioning period. **Deleted**~~

Verification: ~~The project owner and/or operator (project owner) shall report, the date of operation, the number of hours of operation, the natural gas fuel consumption (mmcf) and total NOx emissions (lbs) from initial commissioning to the California Energy Commission Compliance Project Manager (CPM) for each of the four gas turbines and duct burners in the monthly compliance report.~~

AQ-1a The project owner shall construct, operate, and maintain this equipment according to the following specification:

In compliance with all applicable provisions of all other applicable Federal, State, and local air quality regulations, including but not limited to 40 CFR Parts 52, 60 and 61.

[40 CFR 52.21 -PSD]

[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall make the site and records available for inspection by representatives of the District, California Air Resources Board (ARB), United States Environmental Protection Agency (U.S. EPA), and the Energy Commission.

AQ-1b The project owner shall operate, and maintain this equipment according to the following specification:

All equipment, facilities and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollution emissions.

[40 CFR 52.21 -PSD]

[Devices subject to this condition: D18, D27, D36, D45]

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

AQ-1c This equipment is subject to the applicable requirements of the following rules or regulations:

<u>Contaminant</u>	<u>Rule</u>	<u>Rule/Subpart</u>
<u>NOx</u>	<u>40 CFR 60, Subpart</u>	<u>GG</u>
<u>NOx</u>	<u>40 CFR 60, Subpart</u>	<u>GG</u>

[40 CFR 60 Subpart GG]

[Devices subject to this condition: D18, D27, D36, D45]

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

AQ-2 The 5.0 ppm NH₃ emission limit(s) is averaged over 60 minutes at 15 percent O₂, dry.

The owner/operator shall determine the hourly ammonia slip emissions from each exhaust stack for each gas turbine/HRSG train individually via both the following formulas.

District Requirement

The project owner shall calculate and continuously record the NH3 slip concentration using the following:

$$\text{NH}_3 \text{ (ppmv)} = [a - b * (c * 1.2) / 1\text{E}6] * 1\text{E}6/b$$

Where:

a = NH₃ injection rate (lb/hr) / 17 (lb/lbmol),

b = dry exhaust flow rate (scf/hr) / 385.5 (scf/lbmol),

c = change in measured NO_x across the SCR (ppmv at 15% O₂)

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

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

Energy Commission Requirement

$$\text{NH}_3 \text{ (ppmv @ 15\% O}_2\text{)} = ((a - b * (c / 1\text{E}6)) * (1\text{E}6/b)) * d,$$

Where:

a = NH₃ injection rate (lb/hr) / 17 (lb/lbmol)

b = dry exhaust gas flow rate (lb/hr) / (29 (lb/lbmol), or

b = dry exhaust flow rate (scf/hr) / 385.5 (scf/lbmol),

c = change in measured NO_x concentration ppmv corrected to 15% O₂ across catalyst, and

d = correction factor.

The correction factor shall be derived through compliance testing by comparing the measured and calculated ammonia slip. The correction factor shall be reviewed and approved by the CPM on at least an annual basis. The correction factor may rely on previous compliance source test results or other comparable analysis as the CPM finds the situation warrants. The above described ammonia slip calculation procedure shall be used for Energy Commission compliance determination for the ammonia slip limit as prescribed in Condition of Certification **AQ-11** and reported to the CPM on a quarterly basis as prescribed in Condition of Certification **AQ-8**.

An exceedance of the ammonia slip limit as demonstrated by the above Energy Commission formula shall not in and of itself constitute a violation of the limit. An exceedance of the ammonia slip limit shall not exceed 6 hours in duration. In the event of an exceedance of the ammonia slip limit exceeding 6 hours duration, the project owner shall notify the CPM within 72 hours of the occurrence. This notification must include but is not limited to: the date and time of the exceedance, duration of the exceedance, estimated emissions as a result of the exceedance, the suspected cause of the exceedance and the corrective action taken or planned. Exceedances of the ammonia limit that are less than or equal to 6 hours in duration shall be noted in a specific section within the Quarterly report (**AQ-8**). This section shall include, but is not limited to: the date and time of the exceedance, duration of the exceedance, and the estimated emissions as a result of the exceedance. Exceedances

shall be deemed chronic if they total more than 500 hours per year (approximately 10% of the expected operation) for any single HRSG exhaust stack. Chronic exceedances must be investigated and redressed in a timely manner and in conjunction with the CPM through the cooperative development of a compliance plan. The compliance plan shall be developed to bring the project back into compliance first and foremost and shall secondly endeavor to do so in a feasible and timely manner, but shall not be limited in scope.

The owner/operator shall maintain compliance with the ammonia slip limit, redress exceedances of the ammonia slip limit in a timely manner, and avoid chronic exceedances of the ammonia slip limit. Exceedances shall be deemed a violation of the ammonia slip limit if they are not properly redressed as prescribed herein.

The owner/operator shall install a NOx analyzer to measure the SCR inlet NOx ppm accurate to within +/- 5 percent calibrated at least once every 12 months.

[District Rule 1303(a)(1)-BACT]

[Devices subject to this condition: C24, C33, C42, C51]

Verification: The project owner shall include ammonia slip concentrations averages on an hourly basis calculated via both protocols provided as part of the Quarterly Operational report required in Condition of Certification **AQ-8**. The project owner shall submit all calibration results performed to the CPM within 60 days of the calibration date. The project owner shall submit to the CPM for approval a proposed correction factor to be used in the energy Commission formula at least once a year but not to exceed 180 days following the completion of the annual ammonia compliance source test. Exceedances of the ammonia limit shall be reported as prescribed herein. Chronic exceedances of the ammonia slip limit shall be identified by the project owner and confirmed by the CPM within 60 days of the fourth quarter Quarterly Operations report (**AQ-8**) being submitted to the CPM. 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 exceedances of the ammonia slip limit within 60 days of the above confirmation.

AQ-3 The project owner shall install and maintain a ~~continuous monitoring and recording system capable of measuring at least once every 15 minutes and recording measurements at least once every hour~~ **flow meter** to accurately indicate the ammonia injection rate of the ammonia injection system.

The project owner shall install and maintain a device to continuously record the ammonia injection rate. Continuous monitoring and recording shall be defined as measuring at least once every 15 minutes, except as allowed by District Rule 2000. The flow meter shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The project owner shall maintain the flow rate between 0 and 225 pounds per hour.

[District Rule 1303(a)(1)-BACT, 40 CFR 52.21-PSD]

[Devices subject to this condition: C24, C33, C42, C51]

Verification: ~~The project owner shall make the site available for inspection by representatives of the District, California Air Resources Board (CARB), the United States Environmental Protection Agency (EPA) and the California Energy Commission (Commission).~~ **The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.**

AQ-4 The **project** owner shall install and maintain a temperature gauge to accurately **indicate** ~~measure and record~~ the temperature in the **exhaust at the inlet to the** SCR catalyst.

The project owner shall continuously monitor the temperature. The project owner shall also install and maintain a device to continuously record the temperature. 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. The temperature gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The project owner shall maintain the exhaust temperature at the inlet of the SCR between 225 and 1000 degrees Fahrenheit, not including start up or shutdown.

~~The system shall be accurate to within +/- 5 percent and shall be calibrated once every 12 months.~~

~~The operator shall install and maintain a pressure gauge to accurately indicate and continuously record the pressure drop across the SCR catalyst bed in inches of water column. The system shall be accurate to within +/- 5 percent and shall be calibrated once every 12 months.~~

~~Such records shall be and maintained on site per District requirements.~~

[District Rule 2005, 40 CFR 52.21-PSD]

[Devices subject to this condition: C24, C33, C42, C51]

Verification: ~~The project owner shall submit to the CPM a written statement by a California Certified Professional Engineer that the required SCR temperature gage has been installed no later than 6 weeks after installation. The project owner shall submit to the CPM a written statement by a California Certified Professional Engineer that the required SCR pressure gauge has been installed no later than 6 week after installation. The project owner shall, on an annual basis, submit to the CPM a written statement by a California Certified Professional Engineer that the required SCR temperature has been calibrated as required no later than 6 weeks after calibration. The project owner shall, on an annual basis, submit to the CPM a written statement by a California Certified Professional Engineer that the required SCR pressure gauge has been calibrated as required no later than 6 weeks after calibration.~~ **The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.**

AQ-4a The project owner shall install and maintain a pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches water column.

The project owner shall continuously monitor the differential pressure. The project owner shall also install and maintain a device to continuously record the differential pressure. Continuously record shall be defined as recording at least once every month and shall be calculated based upon the average of the continuous monitoring for that month. The pressure gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The project owner shall maintain the differential pressure across the SCR catalyst bed at no more than 6 inches water column.

[District Rule 1303(a)(1)-BACT, 40 CFR 52.21-PSD]
[Devices subject to this condition: C24, C33, C42, C51]

Verification: The project owner shall, on an annual basis, submit to the CPM a written statement that the required SCR pressure gauge has been calibrated as required no later than 6 weeks after calibration. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.

AQ-4b The project owner shall install and maintain a pressure gauge to accurately indicate the differential pressure across the CO catalyst bed in inches of water column.

The project owner shall continuously monitor the differential pressure. The project owner shall also install and maintain a device to continuously record the differential pressure. Continuously record shall be defined as recording at least once every month and shall be calculated based upon the average of the continuous monitoring for that month. The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The differential pressure across shall not exceed 6 inches WC.

[District Rule 1303(a)(1)-BACT, 40 CFR 52.21-PSD]
[Devices subject to this condition: C23, C32, C41, C50]

Verification: The project owner has until the finalization of the SCAQMD permit to operate A/N 593784 to comply with this condition. The project owner shall, on an annual basis, submit to the CPM a written statement that the required CO catalyst pressure gauge has been calibrated as required no later than 6 weeks after calibration. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.

AQ-4c The owner shall install and maintain a temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the CO catalyst.

The project owner shall continuously monitor the temperature. The project owner shall also install and maintain a device to continuously record the temperature. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the continuous monitoring for that hour. The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The exhaust temperature at the inlet of the CO catalyst shall be maintained between 225 and 1,250 degrees Fahrenheit.

[District Rule 1303(a)(1)-BACT, 40 CFR 52.21-PSD]
[Devices subject to this condition: C23, C32, C41, C50]

Verification: The project owner has until the finalization of the SCAQMD permit to operate application number (A/N) 593784 to comply with this condition. The project owner shall, on an annual basis, submit to the CPM a written statement that the required CO catalyst temperature gauge has been calibrated as required no later than 6 weeks after calibration. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.

AQ-5 The project owner shall install, maintain and operate no later than 90 days after the initial startup of the turbine continuous emissions monitoring system (CEMS) for each gas turbine exhaust stack to measure CO concentration in ppmv.

Concentrations shall be corrected to 15% oxygen on a dry basis, ~~and~~ convert these CO concentrations to mass emission rates in units of pounds per hour (lbs/hr).

The CEMS shall be capable of measuring at least installed and operated to measure CO concentrations over a 15-minute averaging time period, ~~and~~ shall record hourly mass emission rates on a continuous basis.

The CEMS shall convert the actual CO concentrations to mass emission rates (pounds per hour) using the equation below and record the hourly emission rates on a continuous basis.

CO emission rate, pounds per hour =
 $K C_{co} F_d [20.9 / (20.9\% - \%O_2 d)] [(Q_g \times HHV)] / 1E6$

Where:

1. $K = 7.267E-08$ (lb/scf) / ppm,
2. C_{co} = Average of four consecutive 15-min. ave. CO concentration, ppm
3. $F_d = 8,710$ - dscf/mmBtu natural gas
4. $\%O_2 d$ = Hourly ave. % by vol. O_2 dry, corresponding to C_{co}
5. Q_g = Fuel gas usage during the hour, scf/hr
- 6 HHV = gross high heating value of fuel gas, Btu/scf

The CEMS shall be installed and operated in accordance with an approved District Rule 218 CEMS plan application. The CEMS plan shall include a requirement for on-going relative accuracy testing. The project owner shall NOT install the CEMS prior to receiving initial approval from the District.

[District Rule 1303(a)(1)-BACT, District Rule 218]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall make the site **and records** available for inspection by representatives of the District, GARB, **U.S.** EPA and the **Energy** Commission. ~~The owner shall submit to the CPM a copy of the CEMS plan application submitted to the District and the initial written approval for installation from the District. No later than two weeks after initial startup date of each turbine, the project owner shall provide written notification to the District and CPM of the exact date of startup.~~

AQ-6 The project owner shall install, maintain and operate a continuous emissions monitoring system (CEMS) for each gas turbine exhaust stack to continuously measure the concentrations of NO_x (in ppmv) and oxygen in percent, fuel flow rate, and operational status codes as defined in District Rule 2012 once every 15 minutes.

In compliance with District Rule 2012, the project owner shall at least annually test the NO_x CEMS for relative accuracy.

The NO_x CEMS shall record the combined NO_x emissions from all four gas turbines and their respective duct burners whenever at least one gas turbine is in startup mode.

The CEMS will convert all recorded NO_x concentrations to mass emissions and record NO_x mass emissions hourly and daily.

The CEMS shall be installed and operating no later than 12 months following first fire (District Rule 2021(h)(6)).

From the time of first fire until the CEMS are certified, the project owner shall comply with the fuel monitoring requirements of District Rule 2012(h)(2) and 2012(h)(3).

The CEMS shall meet U.S. EPA monitoring performance and quality assurance specifications of 40 CFR Part 60, Appendix B and Appendix F, and 40 CFR Part 75.

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

The CEMS shall be operated during start-ups and shutdowns.

[District Rule 2005, District Rule 2012, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall make the site and appropriate records available for inspection by representatives of the District, GARB, **U.S.** EPA and the **Energy** Commission.

AQ-7 The project owner shall electronically report total daily mass emissions of NO_x and daily operational status codes to the District Central NO_x Station in compliance with District rule 2012 (c)(3)(A).

[District Rule 2012]

[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit to the District Monthly Emissions Reports in the manner and form specified by the District within 15 calendar days of the close of each of the first eleven months of the compliance year (District Rule 2012(c)(3)(B)). The Monthly Emissions Report will include mass emissions of NOx on a monthly, daily and hourly basis within the reporting period. The project owner shall submit the Monthly Emissions Report to the CPM as part of the Quarterly Operational Report (see **AQ-8**).

AQ-8 The project owner shall submit to the Commission, Quarterly Operational Reports that include the fuel use associated with each gas turbine train (both gas turbine and duct burner), in addition to the CO and NOx CEMS recorded data for each gas turbine exhaust stack (see **AQ-5** and **AQ-6**) on an hourly basis.

Verification: The project owner shall submit the Quarterly Operational Reports as specified herein to the CPM no later than 30 days following the end of each calendar quarter.

AQ-9 The project owner shall vent the gas turbine and duct burners to the SCR and oxidation catalyst control whenever the turbines or duct burners are in operation, including startup and normal operation.

[District Rule 1303(a)(1) BACT, Rule 2005, 40 CFR 52.21 - PSD]

[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit to the CPM a written statement by a California Certified Professional Engineer that the gas turbine and HRSG exhausts connections to the SCR and oxidation catalysts are operational and air tight installed no later than 6 weeks after installation. **The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.**

AQ-10 Startup is defined for a gas turbine/HRSG train as beginning when fuel is introduced into the turbine's combustor, and ending immediately prior to the first 15-minute period when both the NOx and CO limits in Conditions **AQ-11** are met. **A startup shall not exceed 4-hours a day, except for a cold startup or combustor tuning activities.**

Cold-Startup is defined as a startup **of the gas turbine after the steam turbine has been shutdown for a period of 72 hours or more,** as previously defined, which directly follows at least 72 hours of non-operation of the turbine. **The duration of Cold-Startups may not exceed 6 hours per gas turbine/HRSG per day.**

A gas turbine shutdown event shall be defined as the period beginning with the inability to comply with the 2.0 ppmv NOx limit after initiation of the combustion turbine shutdown sequence and ending either with

1) the cessation of firing of the combustion turbine, or

2) when the unit ramps back up after an aborted shutdown, to the attainment of minimum load.

A shutdown event shall not exceed 30 minutes. Shutdown is defined for a gas turbine/HRSG train as beginning at the start of the first 15-minute period when the NOx and CO limits in Condition **AQ-11** are not met, and ending with the flow of fuel to the turbine's combustor ceases.

Combustor-Tuning is defined as all manufacturer recommended activities required to ensure safe and reliable steady state operation of the gas turbine following the replacement of one (or more) of the turbine combustors. **The duration of Combustor-Tuning may not exceed 6 hours per gas turbine/HRSG per day.** The project owner shall notify the District (via e-mail at energy_compliance@aqmd.gov REFINERYENERGY@AQMD.GOV) and the CPM (by written letter) within two weeks of combustor tuning activities.

The total duration of startups and shutdowns shall not exceed 4 hours per gas turbine/HRSG per day. The duration of Cold Startups may not exceed 6 hours per gas turbine/HRSG per day. The duration of Combustor-Tuning may not exceed 6 hours per gas turbine/HRSG per day.

Total startup and shutdown time for all four gas turbines shall not exceed 3,008 hours per year.

While gas turbine is in startup mode, the NOx and CO emission limits in Condition **AQ-11** shall not apply for that turbine.

During a Startup, Shutdown, Cold Startup or Combustor Tuning event the following emission limits shall apply as indicated:

NOx Emission Limit	Averaging Time	Operational Requirements
80 lbs/hour	1 hour	Applies only to a single turbine/HRSG train during Combustor-Tuning event.
160 lbs/hour	3 hours, rolling	Applies only to a single turbine/HRSG train only during a Startup or Cold-Startup event.
<u>70 lbs/hr</u>	<u>30 minutes</u>	<u>Applies to a single gas turbine during a shutdown event.</u>
<u>600 lbs/startup</u>	<u>6 hour</u>	<u>Applies to a single turbine during a Cold Startup.</u>
<u>400 lbs/startup</u>	<u>4 hour</u>	<u>Applies to a single turbine during a Startup, other than a Cold Startup.</u>
320 lbs/hour	1 hour	Applies to the combined emissions of all four turbine/HRSG trains whenever 1 or more turbines are in Startup or Cold-

		Startup mode.
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[District Rule 1303(a)(1) BACT, Rule 2005, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit fuel use, NOx emissions and operational status on an hourly basis during each startup, shutdown, Cold-Startup or Combustor Tuning event for each gas turbine in the Quarterly Operational Reports (see **AQ-8**).

AQ-11 Except during startup, shutdown, Cold-Startup, Combustor Tuning, initial commissioning and the exceptions noted below, emissions from each gas turbine exhaust stack shall not exceed the following limits:

NOx (measured as NO ₂):	2.0 ppm at 15% oxygen on a dry basis averaged over one hour and 14.22 lbs/hour.
CO:	6.0 ppm at 15% oxygen on a dry basis averaged over 1 hours and 25.91 lbs/hr.
SOx (measured as SO ₂):	1.42 lbs/hr
VOC:	4.96 lbs/hr
PM10:	11.0 lbs/hr
Ammonia:	<u>5.0</u> ppm at 15% oxygen on a dry basis

Exceptions:

The NOx limit shall not apply to the first fifteen 1-hour average NOx emissions that are above 2.0 ppmv, dry basis at 15% O₂, in any rolling 12-month period for each combustion gas turbine provided that it meets all of the following requirements A, B, C and D.

- A. This equipment operates under any one of the qualified conditions described below:
- a) Rapid combustion turbine load changes due to the following conditions:
 - Load changes initiated by the California ISO or a successor entity when the plant is operating under Automatic Generation Control; or
 - Activation of a plant automatic safety or equipment protection system which rapidly decreases turbine load
 - b) The first two 1-hour reporting periods following the initiation/shutdown of an evaporative cooler supply pump
 - c) The first two 1-hour reporting periods following the initiation of HRSG duct burners
 - d) Events as the result of technological limitation identified by the operator and approved in writing by the **U.S. EPA**, AQMD Executive Officer or his designees, and the CPM.
- B. The 1-hour average NOx emissions above 2.0 ppmv, dry basis at 15% O₂, did not occur as a result of operator neglect, improper operation or maintenance, or qualified breakdown under Rule 2004(i).

- C. The qualified operating conditions described in (A) above must be recorded in the plant's operating log within 24 hours of the event, and in the CEMS by 5 p.m. the next business day following the qualified operating condition. The notations in the log and CEMS must describe the data and time of entry into the log/CEMS and the plant operating conditions responsible for NOx emissions exceeding the 2.0 ppmv 1-hour average limit.
- D. The 1-hour average NOx concentration for periods that result from a qualified operating condition does not exceed 25 ppmv, dry basis at 15 percent O₂.

All NOx emissions during these events shall be included in all calculations of hourly, daily, and annual mass emissions rated as required by this permit.

[District Rule 1303(a)(1) BACT, Rule 2005, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit emission calculations to demonstrate compliance for the NOx and CO limits and source tests, as required in Condition **AQ-15, AQ-16, AQ-17, and AQ-17a**, to demonstrate compliance with SOx, VOC and PM10 emission limits in the Quarterly Operational Reports (see **AQ-8**). Within 5 working days of the occurrence of an exception as described within this Condition, the owner/operator shall notify the CPM. Within 21 working days, of the occurrence for an exception as described within this Condition, the owner/operator shall submit to the CPM a complete report of the exception event. That report must include, but is not limited to: the date, time, duration and cause of the occurrence, the emissions (in total mass and hourly concentration normalized to 15% O₂) because of the occurrence and the evidence required in element (B) above.

AQ-12 Except for initial commissioning, but including startup, shutdowns, Cold-Startups and Combustor-Tunings the emissions from each gas turbine exhaust stack shall not exceed the following limits:

CO	694 lbs per day
CO	8,610 lbs per month
VOC	3,568 lbs per month
PM10	7,725 lbs per month
SOx	1,005 lbs per month

~~Protocol:~~ The project owner shall confirm compliance with the monthly limits **for VOC, PM10 and SOx**, by using the monthly fuel use data of each gas turbine and duct burner pair and the following emission factors:

VOC:	2.51 lbs/mmscf
PM10:	5.57 lbs/mmscf
SOx (measured as SO ₂):	0.71 lbs/mmscf

Compliance with the CO monthly limit shall be confirmed through the valid (per District Rule 218) CO CEMS **data**.

~~or, a~~ Absent valid CO CEMS, the project owner shall determine compliance by calculating emissions using but the monthly fuel use data and the following emission factors:

During Commissioning	114.47	lbs/mmscf
Following Commissioning	13.10	lbs/mmscf

District Rule 1303(b)(2) Offset, Rule 1303(a)(1)-BACT
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit the monthly fuel use data and emission calculations to the CPM in the Quarterly Operation Reports (AQ-8).

AQ-12a The project owner shall limit emissions from the equipment as follows:

<u>NOx</u>	<u>3,419 lbs per day</u>
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This limit shall be based on the emissions of all 4 turbines combined.

[District Rule 1303(a)(1) BACT, Rule 2005, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit the monthly fuel use data and emission calculations to the CPM in the Quarterly Operation Reports (AQ-8).

AQ-13 Deleted

AQ-14 Except for initial commissioning, but including startup and shutdowns, the emissions from each gas turbine exhaust stack shall not exceed the following limits:

PM10: Either 11 lbs/hr or 0.01 grains per standard cubic foot at 3% oxygen averaged over 15 consecutive minutes (or other averaging period specified by the District)]

[District Rule 475]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit source tests as required by Condition AQ-17 confirming verification of the condition.

AQ-15 ~~The project owner shall conduct an initial source test and annually thereafter for NOx, CO and NH3 and once every three years thereafter for SOx, VOC and PM10 of each gas turbine exhaust stack in accordance with the following requirements:~~

- ~~• The project owner shall submit a source test protocol to the District and the CPM 45 days prior to the proposed source test date for approval. The protocol shall include the proposed operating conditions of the gas turbine,~~

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

- ~~The initial source test shall be conducted no later than 180 days following the date of first fire.~~
- ~~The District and CPM shall be notified at least 7 days prior to the date and time of a source test.~~
- ~~The source test shall be conducted with the gas turbine operating under loads of 50%, 75% and 100% of maximum.~~
- ~~The source test shall be conducted to determine the oxygen levels in the exhaust.~~
- ~~The source test shall measure the fuel flow rate, the flue gas flow rate and the gas turbine generating output.~~
- ~~The source test shall be conducted for the pollutants listed using the methods averaging times, and test locations indicated and as approved by the CPM:~~

Pollutant	Method	Averaging Time	Test Location
NOx	District Method 100.1	1 hour	Outlet of SCR
CO	District Method 100.1	District Approved	Outlet of SCR
SOx	District approved method	District Approved	Fuel Sample
VOC	District approved method	1 hour	Outlet of SCR
PM10	District approved method	District Approved	Outlet of SCR
Ammonia	District Method 5.3 and 207.1 or EPA Method 17	1 hour	Outlet of SCR

- ~~The source test results shall be submitted to the District and the CPM no later than 60 days after the source test was conducted.~~
- ~~All emission data is to be expressed in the following units:~~
 1. ~~ppmv corrected to 15% oxygen,~~
 2. ~~pounds per hour,~~
 3. ~~pounds per million cubic feet of fuel burned and~~
 4. ~~additionally, for PM10 only, grains per dry standard cubic feet of fuel burned.~~

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

<u>Pollutant</u>	<u>Method</u>	<u>Averaging Time</u>	<u>Test Location</u>
<u>SOx</u>	<u>AQMD Laboratory Method 307-91 or District approved Method</u>	<u>District Approved</u>	<u>Fuel Sample</u>
<u>VOC</u>	<u>District Method 25.3 or District approved method</u>	<u>1 hour</u>	<u>Outlet of SCR</u>
<u>PM10</u>	<u>District Method 5.1 or District approved method</u>	<u>District Approved</u>	<u>Outlet of SCR</u>

The test(s) shall be conducted at least once every three years. In the case where 3 consecutive annual PM10 tests (required under condition AQ-17) show compliance, the once every 3 year frequency of this

condition shall take precedence over the once every 5 year time frame specified in AQ-17.

The test shall be conducted and the results submitted to the District within 60 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted in accordance with a District approved source test protocol. The protocol shall be submitted to the District permitting engineer no later than 45 days before the proposed test date and shall be approved by the District before the test commences. The protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the 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 demonstrate compliance with the Rule 1303 concentration and emissions limit.

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 (MW).

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

For natural fired fired turbines only, an alternative to SCAQMD Method 25.3 for the purpose of demonstrating compliance with BACT as determined by ARB and SCAQMD, may be the following:

- a) Triplicate stack gas samples are extracted directly into Summa canisters, maintaining a final canister pressure between 400-500 mm HG absolute,
- b) Pressurization of the Summa canisters is done with zero gas analyzed/certified to containing less than 0.05 ppmv total hydrocarbons as carbon,
- c) Analysis of Summa canisters is per unmodified U.S. EPA Method TO-12 (with pre-concentration) or the canister analysis portion of SCAQMD Method 25.3 with a minimum detection limit of 0.3 ppmvC or less and reported to two significant figures, and
- d) The temperature of the summa canisters when extracting samples for analysis is not to be below 70 F.

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

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent maximum load.

[District Rule 1303(a)(1) - BACT, Rule 1303(b)(2) - Offset]
[Devices subject to this condition: D18, D27, D36, D45]

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 District 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 District and CPM. The project owner shall notify the District and CPM no later than 7 days prior to a source test date.

- AQ-16** The project owner shall conduct source testing of each gas turbine exhaust stack in accordance with the following requirements:
- ~~The project owner shall submit a source test protocol to the District and the CPM no later than 45 days prior to the proposed source test date for approval. The protocol shall include the proposed operating conditions of the gas turbine, the identity of the testing lab, a statement from the lab certifying that it meets the criteria of District Rule 304, and a description of all sampling and analytical procedures.~~
 - ~~Source testing shall be conducted quarterly for the first 12 months of operation and annually thereafter.~~
 - ~~NOx concentrations as determined by CEMS shall be simultaneously recorded during the ammonia test. If the NOx CEMS is inoperable, a test shall be conducted to determine the NOx emission by using District Method 100.1 measured over a 60 minute averaging period.~~
 - ~~Source testing shall be conducted to determine the ammonia emissions from each gas turbine exhaust stack using District Method 5.3 and 207.1 or EPA Method 17 measured over a 1 hour averaging period.~~
 - ~~The District and CPM shall be notified of the date and time of the source testing at least 7 days prior to the test.~~
 - ~~The source test shall be conducted and the results submitted to the District and CPM within 45 days after the test date.~~
 - ~~Source testing shall measure the fuel flow rate, the flue gas flow rate and the gas turbine generating output.~~
 - ~~The test shall be conducted when the equipment is operating at 80 percent load or greater.~~
 - ~~All emission data is to be expressed in the following units:~~
 1. ~~ppmv corrected to 15% oxygen,~~
 2. ~~pounds per hour,~~
 3. ~~pounds per million cubic feet of fuel burned~~

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

<u>Pollutant</u>	<u>Method</u>	<u>Averaging Time</u>	<u>Test Location</u>
<u>NH₃</u>	<u>District Method 207.1 and 5.3 or EPA Method 17, or District approved Method</u>	<u>1 hour</u>	<u>Outlet of SCR</u>

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

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

The test shall be conducted when the equipment is operating at 80 percent load or greater.

The test shall be conducted and the results submitted to the AQMD permitting engineer within 45 days after the test date.

[District Rule 1303(a)(1) - BACT]

[Devices subject to this condition: D18, D27, D36, D45]

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 District and CPM for approval. No later than 7 days prior to the proposed source test, the project owner shall notify the District and CPM of the source test date and time of the source test. The project owner shall submit source test results no later than 45 **60** days following the source test date to both the District and CPM.

AQ-17 The project owner shall conduct source testing of each gas turbine exhaust stack **using AQMD Method 5.1 or other alternate method approved in writing by the SCAQMD,** to verify compliance with the PM10 emission limits stated in Condition **AQ-14.** **Each test shall include,** in accordance with the following requirements:

- ~~• The project owner shall submit a source test protocol to the District and the Commission 60 days prior to the proposed initial source test date. The protocol shall include the proposed operating conditions of the gas turbine, the identity of the testing lab, a statement from the lab certifying that it meets the criteria of District Rule 304, and a description of all sampling and analytical procedures.~~
- ~~• Source testing shall be conducted to measure PM10 emissions from each gas turbine exhaust stack using District Method 5.1.~~
- ~~• Source testing shall be conducted using natural gas operating at minimum load under normal operating conditions, if natural gas is burned more than 120 consecutive hours or 200 hours accumulated over any 12 consecutive months. The source test shall be conducted no later than 6 months after this time limit has been exceeded.~~
- ~~• Source testing shall be conducted using natural gas operating at maximum load under normal operating conditions, if natural gas is burned more than 120 consecutive hours or 200 hours accumulated over any 12 consecutive months. The source test shall be conducted no later than 6 months after this time limit has been exceeded.~~
- ~~• Source testing frequency shall be annual, but may be reduced to once every 5 years under the highest emitting load if three consecutive annual test results show compliance condition **AQ-14.**~~
- ~~• Source testing shall not be required for any one year for which the equipment is not in operation.~~
- ~~• Source test shall measure the fuel flow rate, the flue gas flow rate and the gas turbine generating output.~~
- ~~• Source test results shall be submitted to the District and the Commission no later than 60 days after the source test was conducted.~~
- ~~• All emission data is to be expressed in the following units:~~

1. ~~pounds per hour~~
2. ~~pounds per million cubic feet of fuel burned and~~
3. ~~grains per dry standard cubic feet of fuel burned.~~

- a) One test using natural gas operating at minimum load under normal operating conditions, if natural gas is burned more than 120 consecutive hours or 200 hours accumulated over any 12 consecutive months. The source test shall be conducted no later than 6 months after this time limit has been exceeded.
- b) One test using natural gas operating at maximum load under normal operating conditions, if natural gas is burned more than 120 consecutive hours or 200 hours accumulated over any 12 consecutive months. The source test shall be conducted no later than 6 months after this time limit has been exceeded.

The source testing frequency is annual, but may be reduced to once every 5 years under the highest emitting load if three consecutive annual test results show compliance with condition AQ-14.

[District Rule 3004 – Periodic Monitoring]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit the proposed protocol for the source tests 60 days prior to the proposed source test date to both the District 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 District and CPM. The project owner shall submit the proposed protocol for the source tests 45 days prior to the proposed source test date to both the District and CPM for approval. No later than 7 days prior to the proposed source test, the project owner shall notify the District and CPM of the source test date and time of the source test. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-17a The project owner shall conduct source test(s) for the pollutant identified below:

<u>Pollutant</u>	<u>Method</u>	<u>Averaging Time</u>	<u>Test Location</u>
<u>NOx</u>	<u>EPA Method 1-4 and 7E or equivalent as approved by U.S. EPA</u>	<u>60 minutes</u>	<u>Outlet of SCR</u>

The test shall be conducted within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup (as defined in 40 CFR 60.2), and annually thereafter (within 30 days of the anniversary of the initial performance test). Upon written request from the permittee (Attn: Air 5), and adequate justification, U.S. EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity.

The U.S. EPA shall be notified of the date and time of the test at least 30 days prior to the test.

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

For the initial source test, the test shall be conducted when the equipment is operating at or near loads of 100 percent, 75 percent, and 50 percent of maximum load. For the annual source tests, the test shall be conducted when the equipment is operating at or near maximum load.

The test shall be conducted in accordance with an U.S. EPA approved source test protocol. The protocol shall be submitted to the U.S. EPA no later than 45 days prior to the proposed test date and shall be approved by the U.S. EPA before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the test, the identity of the testing lab, and a description of all sampling and analytical procedures.

[40 CFR 52.21 - PSD]
[Devices subject to this condition: D18, D27, D36, D45]

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 District and the CPM. No later than 7 days prior to the proposed source test, the project owner shall notify the CPM of the source test date and time of the source test. The project owner shall submit source test results no later than 60 days following the source test date to the CPM.

AQ-17b The project owner shall conduct source test(s) for the pollutant identified below:

<u>Pollutant</u>	<u>Method</u>	<u>Averaging Time</u>	<u>Test Location</u>
<u>CO</u>	<u>District Method 100.1 or District approved Method</u>	<u>1 hour</u>	<u>Outlet of SCR</u>

The test shall be conducted no later than 180 days from the date the permit for the CO catalyst is issued and the results submitted to the District within 60 days after the test date. The SCAQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted when the equipment is operating within 5 percent of maximum heat input, within 5 percent of minimum heat input, and one intermediate load.

[District Rule 1303(a)(1) BACT]
[Devices subject to this condition: D18, D27, D36, D45]

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

AQ-17c The project owner shall provide the source test report(s) in accordance with the following specifications:

Source test results shall also include turbine and generator output under which the test was conducted.

Source test results shall also include turbine fuel flow rate under which the test was conducted.

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).

Emission data shall be expressed in terms of lbs/mm cubic feet.

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.

Emission data shall be expressed in terms of mass rate (lbs/hr). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

Source test results shall also include exhaust gas moisture content under which the test was conducted.

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

[District Rule 1303(a)(1) BACT, District Rule 1303(b)(2) offset, Rule 2005, 40 CFR 52.21 - PSD]

[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE DIESEL EMERGENCY POWER ENGINE (D61) FOLLOWING EQUIPMENT:

Internal combustion engine, emergency power, diesel Caterpillar 3512B, turbocharged, aftercooled, 2,155 BHP A/N 500222 (ID. No. D61).

AQ-18 The project owner shall not only use fuel oil diesel fuel containing sulfur compounds less than or equal to in excess of 15 ppm by weight, as supplied by the supplier.

[District Rule 1303(a)(1) BACT, District Rule 1470]
[Devices subject to this condition: D61]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, GARB, U.S. EPA or the Energy Commission (see **AQ-21**).

AQ-19 Deleted

AQ-19a The project owner shall operate and maintain this equipment according to the following specifications:

The Cleanair Systems "PERMIT" filter system installed for the equipment shall be operated according to the following criteria:
(1) The maximum consecutive minutes at idle shall not exceed 240 minutes;
(2) The number of 10-minute idle sessions before regeneration is required shall be after 24 consecutive sessions;
(3) The minimum temperature/load/time for regeneration shall not be less than 40% load or 300 deg. C for 30% of operating time or 2 hrs, whichever is longer.

The Cleanair Systems "PERMIT" filter system installed for the equipment shall be provided with a data logging and alarm system to record and monitor the equipment's exhaust backpressure and temperature during operation.

[District Rule 1303(a)(1)]
[Devices subject to this condition: D61]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, GARB, U.S. EPA or the Energy Commission (see **AQ-21**).

AQ-20 The project owner shall install and maintain a non-resettable elapsed time meter to accurately indicate the elapsed operating time of the emergency IC engine.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012]
[Devices subject to this condition: D61]

Verification: The project owner shall make the site available for inspection by representatives of the District, GARB, U.S. EPA or the Energy Commission.

AQ-21 The project owner shall maintain records in a manner approved by the District for the following parameters or items in regards to the emergency IC engine:

Records obtained from a data logger and alarm system provided for use on the equipment's diesel particulate filter.

An engine operating log listing on a monthly basis:

- Date of operation,
- elapsed time of operation (in hours) and
- the reason for operation.

The total hours of operation for the previous calendar year shall be recorded sometime during the first 15 days of January each year.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, 40 CFR 52.21 - PSD] [Devices subject to this condition: D61]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, CARB, U.S. EPA or the Energy Commission.

AQ-22 The project owner shall use the emergency IC engine only during utility failure periods, except for maintenance purposes **or as described in AQ-23.**

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012] [Devices subject to this condition: D61]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, CARB, U.S. EPA or the Energy Commission (see **AQ-21**).

AQ-23 The project owner shall limit the operating time of the emergency IC engine to no more than 199 hours per year.

The total operating time allowed under this condition includes no more than 50 hours in any one year for maintenance and testing.

Operation of the engine beyond the 50 hr/yr allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power, emergency operation as defined in Rule 1470, or up to 30 min prior to a rotating outage, if the grid operator or utility 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.

**[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012]
[Devices subject to this condition: D61]**

Verification: The project owner shall submit the recorded data specified in condition **AQ-21, including the hours of total operation,** on an annual basis as part of the fourth Quarter Operational Report (see **AQ-8**).

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE DIESEL EMERGENCY FIRE PUMP (D58) FOLLOWING EQUIPMENT:

~~Internal combustion engine, emergency fire pump, diesel Clarke Model JW6H-UF60, 9.7⁰ timing retard, turbocharged, aftercooled, 375 BHP A/N 366156 (ID. No. D58).~~

AQ-24 The project owner shall not **only** use fuel oil **diesel fuel** containing sulfur compounds **less than or equal to** ~~in excess of~~ 15 ppm by weight, as supplied by the supplier.

**[District Rule 1303(a)(1) BACT, District Rule 1470]
[Devices subject to this condition: D58]**

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, GARB, **U.S.** EPA or the **Energy** Commission (see **AQ-27**).

AQ-25 The project owner shall set and maintain the fuel injection timing of the fire pump IC engine at 9.7⁰ retarded relative to standard timing.

**[District Rule 1303(a)(1) BACT, District Rule 2005, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D58]**

Verification: The project owner shall make the site available for inspection by representatives of the District-GARB, **U.S.** EPA or the **Energy** Commission.

AQ-26 The project owner shall install and maintain a non-resettable elapsed time meter to accurately indicate the elapsed operating time of the fire pump IC engine.

**[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D58]**

Verification: The project owner shall make the site available for inspection by representatives of the District, GARB, **U.S.** EPA or the **Energy** Commission.

AQ-27 The project owner shall maintain records in a manner approved by the District for the following parameters or items in regards to the fire pump IC engine:

An engine operating log listing on a monthly basis:

- Date of operation,
- elapsed time of operation (in hours) and
- the reason for operation.

The total hours of operation for the previous calendar year shall be recorded sometime during the first 15 days of January each year.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, 40 CFR 52.21 - PSD] [Devices subject to this condition: D58]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, GARB, U.S. EPA or the Energy Commission.

AQ-28 The project owner shall limit the operating time of the fire pump IC engine to no more than 199 hours per year.

The 199 hours per year shall include no more than 34 hours in any one year for maintenance and testing purposes.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012] [Devices subject to this condition: D58]

Verification: The project owner shall submit the recorded data specified in condition **AQ-27, including the hours of total operation,** on an annual basis as part of the fourth Quarter Operational Report (see **AQ-8**).

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE COOLING TOWERS (E17) FOLLOWING EQUIPMENT:

~~The two cooling towers associated with the new gas turbine units (Units 3 and 4), each are 147,000 gal/min in capacity, have 10 cells, two rows side-by-side, forced vent and have a drift rate of 0.0006%.~~

AQ-29 For the two cooling towers associated with Units 3 and 4, the project owner shall submit drift eliminator design details and vendor specific justification for the correction factor to be used to correlate blowdown TDS to drift TDS and the amount of drift that stays suspended in the atmosphere in the equation in Condition **AQ-34** to the Commission at least 30 days prior to commencement of construction.

[Devices subject to this condition: E17]

Verification: 30 days prior to commencement of construction of the cooling towers, the project owner shall submit the information required above to the CPM.

AQ-30 For the two cooling towers associated with Units 3 and 4, the project owner shall submit cooling tower design details including the cooling tower type and materials of construction to the Commission at least 30 days prior to commencement of construction, and at least 90 days before the tower is operated.

[Devices subject to this condition: E17]

Verification: The project owner shall submit the information required above to the CPM 30 days prior to the commencement of construction of the cooling towers.

AQ-31 The project owner shall NOT use hexavalent chromium containing compounds in the cooling tower circulating water.

[Devices subject to this condition: E17]

Verification: The project owner shall make the site available for inspection by representatives of the CARB, U.S. EPA or the Energy Commission.

AQ-32 The project owner shall design and build the cooling towers for units 3 and 4 such that the drift eliminator drift rate of the cooling towers does not exceed 0.0006%.

[Devices subject to this condition: E17]

Verification: The project owner shall submit documentation from the selected cooling tower vendor that verifies the drift efficiency to the CPM 30 days prior to commencement of construction of the cooling towers.

AQ-33 The project owner shall limit the PM10 emissions from the cooling towers associated with units 3 and 4 as follows:

Each 10 cell cooling tower is not to exceed 70.1 lbs/day

[Devices subject to this condition: E17]

Verification: The project owner shall submit data and calculations on annual basis to the CPM as discussed in condition **AQ-34**.

AQ-34 The project owner shall demonstrate compliance with the PM10 daily emission limit (see **AQ-33**) as follows:

PM10 lb/day = circulating water recirculation rate * total dissolved solids concentration in the blowdown water * design drift rate * correction factor.

[Devices subject to this condition: E17]

Verification: The project owner shall compile the required data on a daily basis and submit the data and calculations annually in the fourth Quarter Operational Report (see **AQ-8**) to the CPM.

AQ-35 The project owner shall perform circulating water sample analyses by independent laboratory within 90 days of initial operation and weekly thereafter to determine the TDS within the cooling tower water. Alternatively, the project owner shall continuously measure cooling tower basin water conductivity for use in the calculation required by condition **AQ-34**.

[Devices subject to this condition: E17]

Verification: The project owner shall compile the required analyses and maintain the data on site for a minimum period of two years. The project owner shall make the site available for inspection by representatives of the District, CARB, **U.S.** EPA or the **Energy** Commission.

THE FOLLOWING CONDITION OF CERTIFICATION PERTAINS TO THE GAS TURBINES, DUCT BURNERS AND EMERGENCY ENGINES (D18, D27, D36, D45, D58, D61, D21, D30, D39, D48)

AQ-36 The following condition is applicable to each of the four combustion turbines (D19, D27, D36, D45):

- A. The gas turbines shall not be operated unless the facility holds 114,412 pounds of NO_x RTCs in its allocation account to offset the annual emissions increase for the first compliance 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, the gas turbines shall not be operated unless the operator demonstrates to the District that, at the commencement of each compliance year after the first compliance year of operation, the facility holds 107,552 pounds of NO_x 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 following condition is applicable to each of the four duct burners (D21, D30, D39, D48):

- B. The duct burner shall not be operated unless the facility holds 7,758 pounds of NO_x RTCs in its allocation account to offset the annual emissions increase for the first compliance 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, the duct burner shall not be operated unless the operator demonstrates to the District that, at the commencement of each compliance year after the first compliance year of operation, the facility holds 7,293 pounds of NO_x 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 following condition is applicable to the emergency fire pump engine (D58):

- C. The emergency fire pump IC engine shall not be operated unless the facility holds 841 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first compliance 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, the emergency fire pump IC engine shall not be operated unless the operator demonstrates to the District that, at the commencement of each compliance year after the first compliance year of operation, the facility holds 841 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 following condition is applicable to the emergency IC engine (D61):

- D. The emergency IC engine shall not be operated unless the facility holds 1,549 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first compliance 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, the emergency IC engine shall not be operated unless the operator demonstrates to the District that, at the commencement of each compliance year after the first compliance year of operation, the facility holds 1,549 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.

[District Rule 2005]

[Devices subject to this condition: D18, D27, D36, D45, D58, D61, D21, D30, D39, D48]

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District in each Quarterly Operational Report. (see **AQ-8**).

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE STORAGE TANK (D60) FOLLOWING EQUIPMENT:

~~Storage tank, TK-3, serving SCRs 3-1, 3-2, 4-3, 4-4 with a vapor return line, 36,000 gallons (ID No. D60).~~

AQ-37 The project owner shall vent the aqueous ammonia storage tank during filling procedures only to the vessel from which it is being filled.

[District Rule 1303(a)(1) BACT]
[Devices subject to this condition: D60]

Verification: The project owner shall make the site available for inspection by representatives of the GARB, **U.S.** EPA or the **Energy** Commission.

AQ-38 The project owner shall install and maintain a pressure relief valve with a minimum pressure set at 25 psig in the aqueous ammonia storage tank.

[District Rule 1303(a)(1) BACT]
[Devices subject to this condition: D60]

Verification: The project owner shall make the site available for inspection by representatives of the GARB, **U.S.** EPA or the **Energy** Commission.

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE DRY STORAGE EQUIPMENT (D63, D64, D65):

AQ-39 **The project owner shall operate and maintain this equipment according to the following specifications:**

The bin vent filter shall be in the ON position at all times during the filling of the silo, and for at least 1 hour after filling has ended.

The filling of the silo shall be stopped immediately if the high level switch is activated.

The storage silo shall not be filled past the high level switch.

The unload truck hose shall be equipped with a dust cap. The dust cap shall be in place at all times except during the actual filling operation.

[District Rule 1303(a)(1) BACT, District Rule 403]
[Devices subject to this condition: D63, D64, D65]

Verification: **The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.**

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE ABRASIVE BLASTING EQUIPMENT (E14):

AQ-40 **The project owner shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the SCAQMD reporting requirements.**

The project owner shall keep the records in accordance with the SCAMD recordkeeping requirements and the following records:

- 1). Stack or emission point identification;**
- 2). Description of any corrective actions taken to abate visible emissions; and**
- 3). Date and time visible emission was abated.**

[District Rule 1303(a)(1) BACT, District Rule 403]
[Devices subject to this condition: E14]

Verification: The project owner shall make the site and records available for inspection by representatives of the ARB, U.S. EPA or Energy Commission. Whenever the project owner is required to notify the SCAQMD or provide a written report, the project owner shall also notify and submit any documents to the CPM following the same time frames required by the SCAQMD.

AQ-41 **The project owner shall perform an annual inspection of the equipment and filter media for leaks broken or torn filter media, an improperly installed filter media**

[District Rule 3004(a)(4) Periodic Monitoring]
[Devices subject to this condition: E14]

Verification: The project owner shall make the site and records available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

AQ-42 **The project owner shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):**

- A. The name of the person performing the inspection and/or maintenance of the dust collector,**
- B. The date, time and results of the inspection,**
- C. The date, time, and description of any maintenance or repairs resulting from the inspection.**

[District Rule 3004(a)(4) Periodic Monitoring]
[Devices subject to this condition: E14]

Verification: The project owner shall make the site and records available for inspection by representatives of the ARB, U.S. EPA or Energy Commission..

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE FACILITY:

AQ-43 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.**

[District Rule 401]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission. The project owner shall report any complaint to the CPM within 24 hours of receiving the complaint.

AQ-44 The project owner shall not use diesel fuel containing sulfur compounds in excess of 0.05 percent by weight.

[District Rule 431.2]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

AQ-45 The project owner shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[District Rule 431.2]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

AQ-46 The project owner shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

- A. For architectural applications where no thinners, reducers or other VOC containing materials are added, maintain semi-annual records for all coating consisting of:**
 - (a) Coating type,**
 - (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings,**
 - (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.**

- B. For architectural applications where thinners, reducers or other VOC containing materials are added, maintain daily records for all coating consisting of:**
- (a) Coating type,**
 - (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings,**
 - (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.**

[District Rule 3004(a)(4) Periodic Monitoring]
[Devices subject to this condition: E16]

Verification: The project owner shall make the site and records available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

APPENDIX A

Conditions of Certification

CONDITIONS OF CERTIFICATION INCLUDING PROPOSED CHANGES

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD, AQMD OR DISTRICT) PERMIT CONDITIONS WITH CORRESPONDING ENERGY COMMISSION CONDITIONS OF CERTIFICATION:

SCAQMD Permit Conditions	Energy Commission Conditions of Certification	Condition Description
A63.2	AQ-12	Monthly contaminant emission limits (CO, VOC, PM10, & SOx). Includes emissions calculations equations and emission factors.
A63.3	AQ-12	Daily contaminant emission limit (CO) from CEMS or equation.
A63.4	AQ-12a	Daily contaminant emission limit (NOx) for turbines combined.
A99.2	AQ-10, 11	NOx emission limit of 2.0 ppm does not apply during startup, and shutdown periods. Startup limited to 4 hours, cold start up 6 hours, and shutdowns 0.5 hours per event.
A99.3	AQ-10, 11	CO emission limit of 6.0 ppm does not apply during startup, and shutdown periods. Startup limited to 4 hours, cold start up 6 hours, and shutdowns 0.5 hours per event.
A195.1	AQ-11	NOx emission limit of 2.0 ppm @ 15% O ₂ averaged over 1-hour with specified exceptions.
A195.2	AQ-11	CO emission limit of 6.0 ppm @ 15% O ₂ averaged over 1-hour.
A195.4	AQ-2, 11	Ammonia limit of 5.0 ppmv @ 15% O ₂ averaged over 1-hour. SCAQMD equation for calculating slip. AQ-24 includes Energy Commission method as well.
A327.1	AQ-14	Under Rule 475; project may violate either the mass emission limit or concentration emission limit, but not both at the same time.
A433.1	AQ-10	Startup NOx emission requirements.
A433.2	AQ-10	Startup, tuning, and shutdown NOx emission limits
B61.1	AQ-18, 24	Diesel fuel sulfur content limited to 15 ppm by weight.
C1.1	AQ-28	Limit fire pump engine operation to 199 hours per year, no more than 34 hours for maintenance and testing.
C1.1	AQ-26	Install and maintain non-resettable time meter
C1.2	AQ-23	Limit emergency engine operation to 200 hours per year, no more than 50 hours for maintenance and testing.
C1.2	AQ-20	Install and maintain non-resettable time meter.
C1.1	AQ-22	Operation is limited to loss of grid power, emergency

SCAQMD Permit Conditions	Energy Commission Conditions of Certification	Condition Description
		operation, or prior to rotating outage.
C157.1	AQ-38	Storage tank pressure relief valve set to 25 psig.
C177.2	AQ-25	Fuel injection timing set to 9.7 degrees retarded relative to standard timing for fire pump engine.
D12.3	AQ-3	Requires a flow meter to monitor ammonia injection.
D12.4	AQ-4	Requires a temperature gauge for the SCR.
D12.5	AQ-4a	Requires a pressure gauge for the SCR.
D12.6	AQ-4b	Requires a pressure gauge for the CO catalyst.
D12.7	AQ-4c	Requires a temperature gauge for the CO catalyst.
D29.2	AQ-15	Initial and ongoing source testing requirements.
D29.3	AQ-16	Initial and ongoing ammonia source testing requirements.
D29.4	AQ-17b	Source testing requirement for CO catalyst.
D82.1	AQ-5	CEMS CO monitoring and reporting requirements.
D82.2	AQ-6	CEMS NOx monitoring and reporting requirements.
D182.1	AQ-17a	Source testing for NOx.
D322.1	AQ-41	Annual inspection of applicable equipment.
D372.1	AQ-17	Source testing for PM.
D381.1	AQ-40	Visible emissions requirements for abrasive blasting.
E57.1	AQ-9	Vent to emission control when in operation.
E144.1	AQ-37	Venting limitation for ammonia storage tank
E193.1	AQ-6a	NOx data acquisition system requirements for turbines
E193.2	AQ-19a	Emission control requirements for emergency power engine
E193.3	AQ-1a	Requires compliance with applicable regulations
E193.4	AQ-1b	Requires equipment maintenance
E193.5	AQ-37	Emission control requirements for silo
F9.1	AQ-43	Equipment Ringelmann and opacity requirements
F14.1	AQ-44	Diesel use sulfur content requirements
F14.2	AQ-45	Diesel purchase requirements
H23.3	AQ-31	Prohibits use of hexavalent chromium containing compounds in the cooling tower water
H23.4	AQ-1c	Outlines federal requirements
I298.1	AQ-36	Outlines Reclaim Trade Credit requirements

SCAQMD Permit Conditions	Energy Commission Conditions of Certification	Condition Description
I298.10		
K40.1	AQ-17c	Source testing recordkeeping and reporting
K67.1	AQ-41	Inspection and maintenance requirements
K67.2	AQ-46	Record keeping requirements for architectural coatings
K67.3	AQ-27	Record keeping requirements for fire pump engine
K63.4	AQ-10	Outlines monitoring and record keeping requirements for turbines
K67.5	AQ-21	Record keeping requirements for emergency power engine
K171.1-3	NA	PSD U.S. EPA notification requirements
NA	AQ-29, 30, 32, 33, 34, 35	Cooling tower requirements

CONSTRUCTION CONDITIONS

AQ-C1 The project owner shall require as a condition of its construction contracts that all contractors/subcontractors ensure that all heavy earthmoving equipment, that includes, but is not limited to bulldozers, backhoes, compactors, loaders, motor graders and trenchers, and cranes, dump trucks and other heavy duty construction related trucks, have been properly maintained and the engines tuned to the engine manufacturer's specifications. The project owner shall further require as a condition of its construction contracts that this equipment shall either (1) employ high pressure fuel injection; (2) employ injection timing retardation to control the emissions of oxides of nitrogen; or (3) be certified to EPA off-road equipment emission standards. The project owner shall further require as a condition of its construction contracts that all diesel fired construction equipment use CARB Low-Sulfur fuel (<15ppm sulfur by weight). The project owner shall further require as a condition of its construction contracts that all heavy construction equipment to the extent practical shall remain running at idle for no more than 5 minutes.

Verification: The project owner shall submit to the CPM, via the Monthly Compliance Report, documentation, which demonstrates that the contractor's/subcontractor's heavy earthmoving equipment is properly maintained and the engines are tuned to the manufacturer's specifications. The project owner shall maintain construction contracts on the site for six months following the start of commercial operation.

AQ-C2 The project owner shall employ the following measures to mitigate, to the extent practical, construction related emission impacts from off-road, diesel fired construction equipment. These measures include the use of oxidizing soot filters, oxidizing catalysts, diesel fuel certified to CARB ultra-low sulfur fuel standards (sulfur content 15 or less ppm) and diesel engines that are

with equipped with high pressure fuel injection, employ fuel injection timing retardation or are certified to EPA and CARB 1996 or better off-road equipment emission standards. Additionally, the project owner shall restrict idle time, to the extent practical, to no more than 5 minutes.

The use of each mitigation measure is to be determined by a Qualified Environmental Professional (QEP) or a qualified independent California Licensed Mechanical Engineer (ME). The QEP or ME is to be approved by the CPM prior to the submission of any reports. The QEP or ME will determine the mitigation measures to be used within the following framework.

Construction Mitigation Framework

1. No Measure or combination of measures shall be allowed to significantly delay the project construction or construction of related linear facilities.
 2. No measure of combination of measures shall be allowed to cause significant damage to the construction equipment or cause a significant risk to on site workers or the public.
 3. Engines certified to EPA and CARB 1996 or better off-road equipment emission standards **and** CARB certified low sulfur diesel fuel may be used in lieu of oxidizing soot filters and oxidizing catalyts.
- The QEP or ME will, in consultation with the California Air Resources Board (CARB), submit for approval to the CPM a Construction Mitigation Plan, Reports or Change and Mitigation Implementation, and all Emergency Termination of Mitigation Reports as necessary, containing at a minimum the following:

Construction Mitigation Plan

The Mitigation Employment Plan shall be submitted to the CPM for approval prior to rough grading on the project site and will include:

1. A list of all diesel fuel burning, off-road, stationary or portable construction-related equipment to be used either on the project construction site or the construction sites of the related linear facilities.
2. All equipment listed under (1), shall be identified as either using engines certified to EAP and CARB 1996 or better off-road equipment emission standards, using diesel engines that are equipped with high pressure fuel injection, or using diesel engines that employ fuel injection timing retardation.
3. The determination of suitability of all equipment listed under (1) to work appropriately with an oxidizing catalyst shall be identified except as provided for in item 3 of the **Construction Mitigation Framework** above. If a piece of equipment is determined to be unsuitable for an oxidizing catalyst, the QEP or ME will provide an explanation as to the cause of this determination.
4. The determination of the suitability of all equipment listed under (1) to work appropriately with an oxidizing soot filter shall be identified except as provided for in item 3 of the Construction Mitigation Framework above. If a piece of equipment is determined to be unsuitable for an oxidizing soot filter, the QEP or ME will provide an explanation as to the cause of this determination.

5. Maximum idle times shall be identified for all equipment listed under (1).
6. The sulfur content of all diesel fuel to be burned in any equipment listed under (1) shall be identified.

Report of Change and Mitigation Implementation

The QEP or ME shall submit a Report of Change and Mitigation Implementation for approval to the CPM following the initiation of construction activities which contains at a minimum the cause of any deviation from the Construction Mitigation Plan measures that were implemented. Verification includes, but is not limited to, the following:

1. EPA or CARB engine certifications for item 2 of the **Construction Mitigation Plan**
2. A copy of the contract agreement requiring subcontractors to comply with the elements under item 2 of the **Construction Mitigation Plan**.
3. Confirmation of the installation of either oxidizing catalysts or oxidizing soot filters as identified in items 3 and 4 of the **Construction Mitigation Plan** or the cause preventing the identified installations.
4. A copy of the contract agreement requiring subcontractors to comply with the elements under item 5 of the **Construction Mitigation Plan**.
5. A copy of receipts of purchase of diesel fuel indicating the sulfur content as identified in item 6 of the **Construction Mitigation Plan**.

Emergency Termination of Mitigation Report

If a specific mitigation measure is determined to be detrimental to a piece of construction equipment or is determined to be causing significant delays in the construction schedule of the project or the associated linear facilities, the mitigation measure may be terminated immediately. However, notification must be sent to the CPM for approval containing an explanation for the cause of termination. All such causes are restricted to one of the following justifications and must be identified in any Emergency Termination of Mitigation report.

1. The measure is excessively reducing normal availability of the construction equipment due to increased downtime for maintenance, and/or power output due to an excessive increase in back pressure.
2. The measure is causing or reasonably expected to cause significant damage to the construction equipment engine.
3. The measure is causing or reasonably expected to cause a significant risk to nearby workers or the public.
4. Any other seriously detrimental cause which has approval by the CPM prior to the change being implemented.

Verification: The project owner will submit to the CPM for approval the qualifications of the QEP or ME at least 45 days prior to the due date for the Construction Mitigation Plan. The project owner will submit the Construction Mitigation Plan to the CPM for approval 60 calendar days prior to rough grading on the project site. The project owner will submit the Report of Change and Mitigation Implementation to the CPM for approval no later than 10 working days following the use of the specific construction equipment on wither the project site or the associated linear facilities. The project owner will submit any Emergency termination of Mitigation reports to the CPM for approval, as required,

no later than 10 working days following the termination of the identified mitigation measure. The CPM will monitor the approval of all reports submitted by the project owner in consultation with CARB, limiting the review time for any one report to no more than 20 working days.

AQ-C3 Prior to breaking ground at the project site, the project owner shall prepare a Construction Fugitive Dust Mitigation Plan that will specifically identify fugitive dust mitigation measures that will be employed for the construction of the Mountainview Power Plant and related facilities.

The Construction Fugitive Dust Mitigation Plan shall specifically identify measures to limit fugitive dust emissions from construction of the project site and linear facilities. Measures that should be addressed include the following:

- the identification of the employee parking area(s) and surface of the parking area(s);
- the frequency of watering of unpaved roads and disturbed areas;
- the application of chemical dust suppressants;
- the use of gravel in high traffic areas;
- the use of paved access aprons;
- the use of posted speed limit signs;
- the use of wheel washing areas prior to large trucks leaving the project site;
- the methods that will be used to clean tracked-out mud and dirt from the project site onto public roads; and,
- the use of on-site monitoring devices.

Verification: At least sixty (60) days prior to breaking ground at the project site, the project owner shall provide the CPM with a copy of the Construction Fugitive Dust Mitigation Plan for approval.

EQUIPMENT

ID No.	Equipment Descriptions
Internal Combustion – Power Generation	
Unit 3-1	
D18	General Electric Model 7FA.04, No. 3A, combined-cycle natural Gas Turbine, 1,991 million British thermal units per hour (mmBtu/hr) at 30 degrees Fahrenheit, with dry low NOx combustors DLN 2.6+, connected directly to a 177.1 megawatt (MW) (gross output at 59 degrees Fahrenheit) Electric Generator, Heat Recovery Steam Generator and 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model 211, Steam Turbine Generator (common with turbine 3B). Connected to C23, C24 and S26.
D21	Duct Burner -135 mmBtu/hr, Connected to C23, C24 and S26.
C23	CO Oxidation Catalyst, No. 3-1, with 185 cubic feet of total catalyst volume Connected to D18 and D21.
C24	Selective Catalytic Reduction, No. 3-1, with 2,750 cubic feet of total catalyst volume, 72 feet height, 1.5 feet long, 25.5 feet wide, with an

	ammonia injection grid. Connected to D18 and D21.
S26	Stack No. 3A, height of 200 feet and diameter of 18 feet. Connected to D18 and D21.
Unit 3-2	
D27	General Electric Model 7FA.04, No. 3B, combined-cycle natural Gas Turbine, 1,991 mmBtu/hr at 30 degrees Fahrenheit, with dry low NOx combustors DLN 2.6+, connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator, Heat Recovery Steam Generator and 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model 211, Steam Turbine Generator (common with turbine 3A). Connected to C32, C33 and S35.
D30	Duct Burner -135 mmBtu/hr, Connected to C32, C33 and S35.
C32	CO Oxidation Catalyst, No. 3-2, with 185 cubic feet of total catalyst volume Connected to D27 and D30.
C33	Selective Catalytic Reduction, No. 3-2, with 2,750 cubic feet of total catalyst volume, 72 feet height, 1.5 feet long, 25.5 feet wide, with an ammonia injection grid. Connected to D27 and D30.
S35	Stack No. 3B, height of 200 feet and diameter of 18 feet. Connected to D27 and D30.
Unit 4-1	
D36	General Electric Model 7FA.04, No. 4A, combined-cycle natural Gas Turbine, 1,991 mmBtu/hr at 30 degrees Fahrenheit, with dry low NOx combustors DLN 2.6+, connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator, Heat Recovery Steam Generator and 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model 211, Steam Turbine Generator (common with turbine 3A). Connected to C41, C42 and S44.
D39	Duct Burner -135 mmBtu/hr, Connected to C41, C42 and S44.
C41	CO Oxidation Catalyst, No. 4-1, with 185 cubic feet of total catalyst volume Connected to D36 and D39.
C42	Selective Catalytic Reduction, No. 4-1, with 2,750 cubic feet of total catalyst volume, 72 feet height, 1.5 feet long, 25.5 feet wide, with an ammonia injection grid. Connected to D36 and D39.
S44	Stack No. 4A, height of 200 feet and diameter of 18 feet. Connected to D36 and D39.
Unit 4-2	
D45	General Electric Model 7FA.04, No. 4B, combined-cycle natural Gas Turbine, 1,991 mmBtu/hr at 30 degrees Fahrenheit, with dry low NOx combustors DLN 2.6+, connected directly to a 177.1 MW (gross output at 59 degrees Fahrenheit) Electric Generator, Heat Recovery Steam Generator and 212.4 MW (gross output at 59 degrees Fahrenheit) GE Model 211, Steam Turbine Generator (common with turbine 3A). Connected to C50, C51 and S53.
D48	Duct Burner -135 mmBtu/hr, Connected to C50, C51 and S53.
C50	CO Oxidation Catalyst, No. 4-2, with 185 cubic feet of total catalyst volume Connected to D45 and D48.
C51	Selective Catalytic Reduction, No. 4-2, with 2,750 cubic feet of total catalyst volume, 72 feet height, 1.5 feet long, 25.5 feet wide, with an ammonia injection grid. Connected to D45 and D48.
S53	Stack No. 4B, height of 200 feet and diameter of 18 feet. Connected to D45 and D48.

Internal Combustion – Diesel Engines	
D58	Internal Combustion Engine, emergency fire pump, diesel Clarke Model JW6H-UF60, lean burn, fuel injection timing retard, turbocharged, aftercooled, 375 brake horsepower (BHP).
D61	Internal Combustion Engine, emergency power, diesel Caterpillar 3512B, turbocharged, aftercooled, 2,155 BHP.
Cooling Towers	
E17	Cooling Towers, two cooling towers serving Units 3 and 4. Each have 147,000 gallon per minute capacity, 10 cells, two rows side-by-side, drft rate of 0.0006 percent and are forced vent.
Storage Tanks	
D60	Storage Tank, TK-3, 19 percent aqueous ammonia, 36,000 gallon, serving SCRs 3-1, 3-2, 4-1 and 4-2, with a vapor return line.
Dry Storage	
D63	Storage Silo, soda ash, 5,000 cubic feet, passive filter, 14 cartridges, 250 square feet of filter area, height of 60 feet and diameter of 12 feet.
D64	Tank, soda ash mixing, fully enclosed, 600 gallons, height of 5 feet and diameter of 5 feet.
D65	Unloading Station, one pneumatic hose.
Other Provisions	
E14	Exempt Equipment: Abrasive Blasting Equipment.
E16	Exempt Equipment: Coating Equipment, Portable, Architectural Coatings.

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO UNITS 3 AND 4 (D18, D21, C23, C24, S26, D27, D30, C32, C33, S35, D36, D39, C41, C42, S44, D45, D48, C50, C51, S53):

AQ-1 Deleted

AQ-1a The project owner shall construct, operate, and maintain this equipment according to the following specification:

In compliance with all applicable provisions of all other applicable Federal, State, and local air quality regulations, including but not limited to 40 CFR Parts 52, 60 and 61.

[40 CFR 52.21 -PSD]

[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall make the site and records available for inspection by representatives of the District, California Air Resources Board (ARB), United States Environmental Protection Agency (U.S. EPA), and the Energy Commission.

AQ-1b The project owner shall operate, and maintain this equipment according to the following specification:

All equipment, facilities and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times

be maintained in good working order and be operated as efficiently as possible so as to minimize air pollution emissions.

[40 CFR 52.21 -PSD]

[Devices subject to this condition: D18, D27, D36, D45]

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

AQ-1c This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
NOx	40 CFR 60, Subpart	GG
NOx	40 CFR 60, Subpart	GG

[40 CFR 60 Subpart GG]

[Devices subject to this condition: D18, D27, D36, D45]

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

AQ-2 The 5.0 ppm NH₃ emission limit(s) is averaged over 60 minutes at 15 percent O₂, dry.

The owner/operator shall determine the hourly ammonia slip emissions from each exhaust stack for each gas turbine/HRSG train individually via both the following formulas.

District Requirement

The project owner shall calculate and continuously record the NH₃ slip concentration using the following:

$$\text{NH}_3 \text{ (ppmv)} = [a - b * (c * 1.2) / 1E6] * 1E6/b$$

Where:

a = NH₃ injection rate (lb/hr) / 17 (lb/lbmol),

b = dry exhaust flow rate (scf/hr) / 385.5 (scf/lbmol),

c = change in measured NO_x across the SCR (ppmvd at 15% O₂)

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

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

Energy Commission Requirement

NH_3 (ppmv @ 15% O₂) = ((a-b * (c / 1E6)) * (1E6/b))*d,

Where:

a = NH₃ injection rate (lb/hr) / 17 (lb/lbmol)

b = dry exhaust gas flow rate (lb/hr) / (29 (lb/lbmol)), or

b = dry exhaust flow rate (scf/hr) / 385.5 (scf/lbmol),

c = change in measured NO_x concentration ppmv corrected to 15% O₂ across catalyst, and

d = correction factor.

The correction factor shall be derived through compliance testing by comparing the measured and calculated ammonia slip. The correction factor shall be reviewed and approved by the CPM on at least an annual basis. The correction factor may rely on previous compliance source test results or other comparable analysis as the CPM finds the situation warrants. The above described ammonia slip calculation procedure shall be used for Energy Commission compliance determination for the ammonia slip limit as prescribed in Condition of Certification **AQ-11** and reported to the CPM on a quarterly basis as prescribed in Condition of Certification **AQ-8**.

An exceedance of the ammonia slip limit as demonstrated by the above Energy Commission formula shall not in and of itself constitute a violation of the limit. An exceedance of the ammonia slip limit shall not exceed 6 hours in duration. In the event of an exceedance of the ammonia slip limit exceeding 6 hours duration, the project owner shall notify the CPM within 72 hours of the occurrence. This notification must include but is not limited to: the date and time of the exceedance, duration of the exceedance, estimated emissions as a result of the exceedance, the suspected cause of the exceedance and the corrective action taken or planned. Exceedances of the ammonia limit that are less than or equal to 6 hours in duration shall be noted in a specific section within the quarterly report (**AQ-8**). This section shall include, but is not limited to: the date and time of the exceedance, duration of the exceedance, and the estimated emissions as a result of the exceedance. Exceedances shall be deemed chronic if they total more than 500 hours per year (approximately 10% if the expected operation) for any HRSG exhaust stack. Chronic exceedances must be investigated and redressed in a timely manner and in conjunction with the CPM through the cooperative development of a compliance plan. The compliance plan shall be developed to bring the project back into compliance first and foremost and shall secondly endeavor to do so in a feasible and timely manner, but shall not be limited in scope.

The owner/operator shall maintain compliance with the ammonia slip limit, redress exceedances of the ammonia slip limit in a timely manner, and avoid chronic exceedances of the ammonia slip limit. Exceedances shall be deemed a violation of the ammonia slip limit if they are not properly redressed as prescribed herein.

The owner/operator shall install a NO_x analyzer to measure the SCR inlet NO_x ppm accurate to within +/- 5 percent calibrated at least once every 12 months.

[District Rule 1303(a)(1)-BACT]
[Devices subject to this condition: C24, C33, C42, C51]

Verification: The project owner shall include ammonia slip concentrations averages on an hourly basis calculated via both protocols provided as part of the Quarterly Operational report required in Condition of Certification **AQ-8**. The project owner shall submit all calibration results performed to the CPM within 60 days of the calibration date. The project owner shall submit to the CPM for approval a proposed correction factor to be used in the energy Commission formula at least once a year but not to exceed 180 days following the completion of the annual ammonia compliance source test. Exceedances of the ammonia limit shall be reported as prescribed herein. Chronic exceedances of the ammonia slip limit shall be identified by the project owner and confirmed by the CPM within 60 days of the fourth quarter Quarterly Operations report (**AQ-8**) being submitted to the CPM. 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 exceedances of the ammonia slip limit within 60 days of the above confirmation.

AQ-3 The project owner shall install and maintain a flow meter to accurately indicate the ammonia injection rate of the ammonia injection system.

The project owner shall install and maintain a device to continuously record the ammonia injection rate. Continuous monitoring and recording shall be defined as measuring at least once every 15 minutes, except as allowed by District Rule 2000. The flow meter shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The project owner shall maintain the flow rate between 0 and 225 pounds per hour.

[District Rule 1303(a)(1)-BACT, 40 CFR 52.21-PSD]
[Devices subject to this condition: C24, C33, C42, C51]

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

AQ-4 The project owner shall install and maintain a temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the SCR catalyst.

The project owner shall continuously monitor the temperature. The project owner shall also install and maintain a device to continuously record the temperature. 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. The temperature gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The project owner shall maintain the exhaust temperature at the inlet of the SCR between 225 and 1000 degrees Fahrenheit, not including start up or shutdown.

[District Rule 2005, 40 CFR 52.21-PSD]
[Devices subject to this condition: C24, C33, C42, C51]

Verification: The project owner shall, on an annual basis, submit to the CPM a written statement that the required SCR temperature has been calibrated as required no later than 6 weeks after calibration. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.

AQ-4a The project owner shall install and maintain a pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches water column.

The project owner shall continuously monitor the differential pressure. The project owner shall also install and maintain a device to continuously record the differential pressure. Continuously record shall be defined as recording at least once every month and shall be calculated based upon the average of the continuous monitoring for that month. The pressure gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The project owner shall maintain the differential pressure across the SCR catalyst bed at no more than 6 inches water column.

[District Rule 1303(a)(1)-BACT, 40 CFR 52.21-PSD]
[Devices subject to this condition: C24, C33, C42, C51]

Verification: The project owner shall, on an annual basis, submit to the CPM a written statement that the required SCR pressure gauge has been calibrated as required no later than 6 weeks after calibration. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.

AQ-4b The project owner shall install and maintain a pressure gauge to accurately indicate the differential pressure across the CO catalyst bed in inches of water column.

The project owner shall continuously monitor the differential pressure. The project owner shall also install and maintain a device to continuously record the differential pressure. Continuously record shall be defined as recording at least once every month and shall be calculated based upon the average of the continuous monitoring for that month. The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The differential pressure across shall not exceed 6 inches WC.

[District Rule 1303(a)(1)-BACT, 40 CFR 52.21-PSD]
[Devices subject to this condition: C23, C32, C41, C50]

Verification: The project owner has until the finalization of the SCAQMD permit to operate A/N 593784 to comply with this condition. The project owner shall, on an annual basis, submit to the CPM a written statement that the required CO catalyst pressure gauge has been calibrated as required no later than 6 weeks after calibration. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.

AQ-4c The owner shall install and maintain a temperature gauge to accurately indicate the temperature in the exhaust at the inlet to the CO catalyst.

The project owner shall continuously monitor the temperature. The project owner shall also install and maintain a device to continuously record the temperature. Continuously record shall be defined as recording at least once every hour and shall be calculated based upon the continuous monitoring for that hour. The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 13 months. The exhaust temperature at the inlet of the CO catalyst shall be maintained between 225 and 1,250 degrees Fahrenheit.

[District Rule 1303(a)(1)-BACT, 40 CFR 52.21-PSD]
[Devices subject to this condition: C23, C32, C41, C50]

Verification: The project owner has until the finalization of the SCAQMD permit to operate application number (A/N) 593784 to comply with this condition. The project owner shall, on an annual basis, submit to the CPM a written statement that the required CO catalyst temperature gauge has been calibrated as required no later than 6 weeks after calibration. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.

AQ-5 The project owner shall install, maintain and operate no later than 90 days after the initial startup of the turbine continuous emissions monitoring system (CEMS) for each gas turbine exhaust stack to measure CO concentration in ppmv.

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

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

The CEMS shall convert the actual CO concentrations to mass emission rates (pounds per hour) using the equation below and record the hourly emission rates on a continuous basis.

CO emission rate, pounds per hour =
 $K C_{co} F_d [20.9 / (20.9\% - \%O_2 d)] [(Q_g \times HHV)] / 1E6]$

Where:

1. $K = 7.267E-08$ (lb/scf) / ppm,
2. C_{co} = Average of four consecutive 15-min. ave. CO concentration, ppm
3. $F_d = 8,710$ - dscf/mmBtu natural gas
4. $\%O_2 d$ = Hourly ave. % by vol. O_2 dry, corresponding to C_{co}
5. Q_g = Fuel ga usage during the hour, scf/hr
- 6 HHV = gross high heating value of fuel gas, Btu/scf

The CEMS shall be installed and operated in accordance with an approved District Rule 218 CEMS plan application. The CEMS plan shall include a requirement for on-going relative accuracy testing. The project owner shall NOT install the CEMS prior to receiving initial approval from the District.

[District Rule 1303(a)(1)-BACT, District Rule 218]
[Devices subject to this condition: D18, D27, D36, D45]

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

AQ-6 The project owner shall install, maintain and operate a continuous emissions monitoring system (CEMS) for each gas turbine exhaust stack to continuously measure the concentrations of NO_x (in ppmv) and oxygen in percent, fuel flow rate, and operational status codes as defined in District Rule 2012 once every 15 minutes.

In compliance with District Rule 2012, the project owner shall at least annually test the NO_x CEMS for relative accuracy.

The NO_x CEMS shall record the combined NO_x emissions from all four gas turbines and their respective duct burners whenever at least one gas turbine is in startup mode.

The CEMS will convert all recorded NO_x concentrations to mass emissions and record NO_x mass emissions hourly and daily.

The CEMS shall be installed and operating no later than 12 months following first fire (District Rule 2021(h)(6)).

From the time of first fire until the CEMS are certified, the project owner shall comply with the fuel monitoring requirements of District Rule 2012(h)(2) and 2012(h)(3).

The CEMS shall meet U.S. EPA monitoring performance and quality assurance specifications of 40 CFR Part 60, Appendix B and Appendix F, and 40 CFR Part 75.

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

The CEMS shall be operated during start-ups and shutdowns.

[District Rule 2005, District Rule 2012, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall make the site and appropriate records available for inspection by representatives of the District, ARB, U.S. EPA and the Energy Commission.

AQ-7 The project owner shall electronically report total daily mass emissions of NO_x and daily operational status codes to the District Central NO_x Station in compliance with District rule 2012 (c)(3)(A).

[District Rule 2012]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit to the District Monthly Emissions Reports in the manner and form specified by the District within 15 calendar days of the close of each of the first eleven months of the compliance year (District Rule 2012(c)(3)(B)). The Monthly Emissions Report will include mass emissions of NOx on a monthly, daily and hourly basis within the reporting period. The project owner shall submit the Monthly Emissions Report to the CPM as part of the Quarterly Operational Report (see **AQ-8**).

AQ-8 The project owner shall submit to the Commission, Quarterly Operational Reports that include the fuel use associated with each gas turbine train (both gas turbine and duct burner), in addition to the CO and NOx CEMS recorded data for each gas turbine exhaust stack (see **AQ-5** and **AQ-6**) on an hourly basis.

Verification: The project owner shall submit the Quarterly Operational Reports as specified herein to the CPM no later than 30 days following the end of each calendar quarter.

AQ-9 The project owner shall vent the gas turbine and duct burners to the SCR and oxidation catalyst control whenever the turbines or duct burners are in operation, including startup and normal operation.

[District Rule 1303(a)(1) BACT, Rule 2005, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit to the CPM a written statement by a California Certified Professional Engineer that the gas turbine and HRSG exhausts connections to the SCR and oxidation catalysts are operational and air tight installed no later than 6 weeks after installation. The project owner shall make the site and records available for inspection by representatives of the District, ARB, U.S. EPA, and the Energy Commission.

AQ-10 Startup is defined for a gas turbine/HRSG train as beginning when fuel is introduced into the turbine's combustor, and ending immediately prior to the first 15-minute period when both the NOx and CO limits in Conditions **AQ-11** are met. A startup shall not exceed 4-hours a day, except for a cold startup or combustor tuning activities.

Cold-Startup is defined as a startup of the gas turbine after the steam turbine has been shutdown for a period of 72 hours or more. The duration of Cold-Startups may not exceed 6 hours per gas turbine/HRSG per day.

A gas turbine shutdown event shall be defined as the period beginning with the inability to comply with the 2.0 ppmv NOx limit after initiation of the combustion turbine shutdown sequence and ending either with

- 2) the cessation of firing of the combustion turbine, or
- 2) when the unit ramps back up after an aborted shutdown, to the attainment of minimum load.

A shutdown event shall not exceed 30 minutes.

Combustor-Tuning is defined as all manufacturer recommended activities required to ensure safe and reliable steady state operation of the gas turbine following the replacement of one (or more) of the turbine combustors. The duration of Combustor-Tuning may not exceed 6 hours per gas turbine/HRSG per day. The project owner shall notify the District (via e-mail at energy_compliance@aqmd.gov REFINERYENERGY@AQMD.GOV) and the CPM (by written letter) within two weeks of combustor tuning activities.

Total startup and shutdown time for all four gas turbines shall not exceed 3,008 hours per year.

While gas turbine is in startup mode, the NOx and CO emission limits in Condition **AQ-11** shall not apply for that turbine.

During a Startup, Shutdown, Cold Startup or Combustor Tuning event the following emission limits shall apply as indicated:

NOx Emission Limit	Averaging Time	Operational Requirements
80 lbs/hour	1 hour	Applies only to a single turbine/HRSG train during Combustor-Tuning event.
160 lbs/hour	3 hours, rolling	Applies only to a single turbine/HRSG train only during a Startup or Cold-Startup event.
70 lbs/hr	30 minutes	Applies to a single gas turbine during a shutdown event.
600 lbs/startup	6 hour	Applies to a single turbine during a Cold Startup.
400 lbs/startup	4 hour	Applies to a single turbine during a Startup, other than a Cold Startup.
320 lbs/hour	1 hour	Applies to the combined emissions of all four turbine/HRSG trains whenever 1 or more turbines are in Startup or Cold-Startup mode.

[District Rule 1303(a)(1) BACT, Rule 2005, 40 CFR 52.21 - PSD]
 [Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit fuel use, NOx emissions and operational status on an hourly basis during each startup, shutdown, Cold-Startup or Combustor Tuning event for each gas turbine in the Quarterly Operational Reports (see **AQ-8**).

AQ-11 Except during startup, shutdown, Cold-Startup, Combustor Tuning, initial commissioning and the exceptions noted below, emissions from each gas turbine exhaust stack shall not exceed the following limits:

NOx (measured as NO ₂):	2.0 ppm at 15% oxygen on a dry basis averaged over one hour and 14.22 lbs/hour.
CO:	6.0 ppm at 15% oxygen on a dry basis averaged over 1 hours and 25.91 lbs/hr.
SOx (measured as SO ₂):	1.42 lbs/hr
VOC:	4.96 lbs/hr
PM10:	11.0 lbs/hr
Ammonia:	5.0 ppm at 15% oxygen on a dry basis

Exceptions:

The NOx limit shall not apply to the first fifteen 1-hour average NOx emissions that are above 2.0 ppmv, dry basis at 15% O₂, in any rolling 12-month period for each combustion gas turbine provided that it meets all of the following requirements A, B, C and D.

- A. This equipment operates under any one of the qualified conditions described below:
- b) Rapid combustion turbine load changes due to the following conditions:
- Load changes initiated by the California ISO or a successor entity when the plant is operating under Automatic Generation Control; or
 - Activation of a plant automatic safety or equipment protection system which rapidly decreases turbine load
- e) The first two 1-hour reporting periods following the initiation/shutdown of an evaporative cooler supply pump
- f) The first two 1-hour reporting periods following the initiation of HRSG duct burners
- g) Events as the result of technological limitation identified by the operator and approved in writing by the U.S. EPA, AQMD Executive Officer or his designees, and the CPM.
- E. The 1-hour average NOx emissions above 2.0 ppmv, dry basis at 15% O₂, did not occur as a result of operator neglect, improper operation or maintenance, or qualified breakdown under Rule 2004(i).
- F. The qualified operating conditions described in (A) above must be recorded in the plant's operating log within 24 hours of the event, and in the CEMS by 5 p.m. the next business day following the qualified operating condition. The notations in the log and CEMS must describe the data and time of entry into the log/CEMS and the plant operating conditions responsible for NOx emissions exceeding the 2.0 ppmv 1-hour average limit.
- G. The 1-hour average NOx concentration for periods that result from a qualified operating condition does not exceed 25 ppmv, dry basis at 15 percent O₂.

All NOx emissions during these events shall be included in all calculations of hourly, daily, and annual mass emissions rated as required by this permit.

[District Rule 1303(a)(1) BACT, Rule 2005, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit emission calculations to demonstrate compliance for the NO_x and CO limits and source tests, as required in Condition **AQ-15**, **AQ-16**, **AQ-17** and **AQ-17a**, to demonstrate compliance with SO_x, VOC and PM₁₀ emission limits in the Quarterly Operational Reports (see **AQ-8**). Within 5 working days of the occurrence of an exception as described within this Condition, the owner/operator shall notify the CPM. Within 21 working days, of the occurrence for an exception as described within this Condition, the owner/operator shall submit to the CPM a complete report of the exception event. That report must include, but is not limited to: the date, time, duration and cause of the occurrence, the emissions (in total mass and hourly concentration normalized to 15% O₂) because of the occurrence and the evidence required in element (B) above.

AQ-12 Except for initial commissioning, but including startup, shutdowns, Cold-Startups and Combustor-Tunings the emissions from each gas turbine exhaust stack shall not exceed the following limits:

CO	694 lbs per day
CO	8,610 lbs per month
VOC	3,568 lbs per month
PM10	7,725 lbs per month
SO _x	1,005 lbs per month

The project owner shall confirm compliance with the monthly limits for VOC, PM₁₀ and SO_x, by using the monthly fuel use data of each gas turbine and duct burner pair and the following emission factors:

VOC:	2.51 lbs/mmscf
PM10:	5.57 lbs/mmscf
SO _x (measured as SO ₂):	0.71 lbs/mmscf

Compliance with the CO monthly limit shall be confirmed through the valid (per District Rule 218) CO CEMS data.

Absent valid CO CEMS, the project owner shall determine compliance by calculating emissions using the monthly fuel use data and the following emission factors:

Following Commissioning	13.10	lbs/mmscf
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District Rule 1303(b)(2) Offset, Rule 1303(a)(1)-BACT]
[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit the monthly fuel use data and emission calculations to the CPM in the Quarterly Operation Reports (**AQ-8**).

AQ-12a The project owner shall limit emissions from the equipment as follows:

NOx	3,419 lbs per day
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This limit shall be based on the emissions of all 4 turbines combined.

[District Rule 1303(a)(1) BACT, Rule 2005, 40 CFR 52.21 - PSD]

[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit the monthly fuel use data and emission calculations to the CPM in the Quarterly Operation Reports (**AQ-8**).

AQ-13 Deleted

AQ-14 Except for initial commissioning, but including startup and shutdowns, the emissions from each gas turbine exhaust stack shall not exceed the following limits:

PM10: Either 11 lbs/hr or 0.01 grains per standard cubic foot at 3% oxygen averaged over 15 consecutive minutes (or other averaging period specified by the District)]

[District Rule 475]

[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit source tests as required by Condition **AQ-17** confirming verification of the condition.

AQ-15 The project owner shall conduct source test(s) for the pollutant(s) identified below.

Pollutant	Method	Averaging Time	Test Location
SOx	AQMD Laboratory Method 307-91 or District approved Method	District Approved	Fuel Sample
VOC	District Method 25.3 or District approved method	1 hour	Outlet of SCR
PM10	District Method 5.1 or District approved method	District Approved	Outlet of SCR

The test(s) shall be conducted at least once every three years. In the case where 3 consecutive annual PM10 tests (required under condition **AQ-17**) show compliance, the once every 3 year frequency of this condition shall take precedence over the once every 5 year time frame specified in **AQ-17**.

The test shall be conducted and the results submitted to the District within 60 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted in accordance with a District approved source test protocol. The protocol shall be submitted to the District permitting engineer no later than 45 days before the proposed test date and shall be

approved by the District before the test commences. The protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the 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 demonstrate compliance with the Rule 1303 concentration and emissions limit.

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 (MW).

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

For natural fired fired turbines only, an alternative to SCAQMD Method 25.3 for the purpose of demonstrating compliance with BACT as determined by ARB and SCAQMD, may be the following:

- a) Triplicate stack gas samples are extracted directly into Summa canisters, maintaining a final canister pressure between 400-500 mm HG absolute,
- b) Pressurization of the Summa canisters is done with zero gas analyzed/certified to containing less than 0.05 ppmv total hydrocarbons as carbon,
- c) Analysis of Summa canisters is per unmodified U.S. EPA Method TO-12 (with pre-concentration) or the canister analysis portion of SCAQMD Method 25.3 with a minimum detection limit of 0.3 ppmvC or less and reported to two significant figures, and
- d) The temperature of the summa canisters when extracting samples for analysis is not to be below 70 F.

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

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 percent maximum load.

[District Rule 1303(a)(1) - BACT, Rule 1303(b)(2) - Offset]
[Devices subject to this condition: D18, D27, D36, D45]

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 District 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 District and CPM. The project owner shall notify the District and CPM no later than 7 days prior to a source test date.

AQ-16 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 EPA Method 17, or District approved Method	1 hour	Outlet of SCR

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

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

The test shall be conducted when the equipment is operating at 80 percent load or greater.

The test shall be conducted and the results submitted to the AQMD permitting engineer within 45 days after the test date.

[District Rule 1303(a)(1) - BACT]

[Devices subject to this condition: D18, D27, D36, D45]

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 District and CPM for approval. No later than 7 days prior to the proposed source test, the project owner shall notify the District and CPM of the source test date and time of the source test. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-17 The project owner shall conduct source testing of each gas turbine exhaust stack using AQMD Method 5.1 or other alternate method approved in writing by the SCAQMD, to verify compliance with the PM10 emission limits stated in Condition **AQ-14**. Each test shall include

- c) One test using natural gas operating at minimum load under normal operating conditions, if natural gas is burned more than 120 consecutive hours or 200 hours accumulated over any 12 consecutive months. The source test shall be conducted no later than 6 months after this time limit has been exceeded.
- d) One test using natural gas operating at maximum load under normal operating conditions, if natural gas is burned more than 120 consecutive hours or 200 hours accumulated over any 12 consecutive months. The source test shall be conducted no later than 6 months after this time limit has been exceeded.

The source testing frequency is annual, but may be reduced to once every 5 years under the highest emitting load if three consecutive annual test results show compliance with condition **AQ-14**.

[District Rule 3004 – Periodic Monitoring]

[Devices subject to this condition: D18, D27, D36, D45]

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 District and CPM for approval. No later than 7 days prior to the proposed source test, the project owner shall notify the District and CPM of the source test date and time of the source test. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-17a The project owner shall conduct source test(s) for the pollutant identified below:

Pollutant	Method	Averaging Time	Test Location
NOx	EPA Method 1-4 and 7E or equivalent as approved by U.S. EPA	60 minutes	Outlet of SCR

The test shall be conducted within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup (as defined in 40 CFR 60.2), and annually thereafter (within 30 days of the anniversary of the initial performance test). Upon written request from the permittee (Attn: Air 5), and adequate justification, U.S. EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity.

The U.S. EPA shall be notified of the date and time of the test at least 30 days prior to the test.

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

For the initial source test, the test shall be conducted when the equipment is operating at or near loads of 100 percent, 75 percent, and 50 percent of maximum load. For the annual source tests, the test shall be conducted when the equipment is operating at or near maximum load.

The test shall be conducted in accordance with an U.S. EPA approved source test protocol. The protocol shall be submitted to the U.S. EPA no later than 45 days prior to the proposed test date and shall be approved by the U.S. EPA before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the test, the identity of the testing lab, and a description of all sampling and analytical procedures.

[40 CFR 52.21 - PSD]

[Devices subject to this condition: D18, D27, D36, D45]

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 District and the CPM. No later than 7 days prior to the proposed source test, the project owner shall notify the CPM of the source test date and time of the source test. The project owner shall submit source test results no later than 60 days following the source test date to the CPM.

AQ-17b The project owner shall conduct source test(s) for the pollutant identified below:

Pollutant	Method	Averaging Time	Test Location
CO	District Method 100.1 or District approved Method	1 hour	Outlet of SCR

The test shall be conducted no later than 180 days from the date the permit for the CO catalyst is issued and the results submitted to the District within 60 days after the test date. The SCAQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted when the equipment is operating within 5 percent of maximum heat input, within 5 percent of minimum heat input, and one intermediate load.

[District Rule 1303(a)(1) BACT]

[Devices subject to this condition: D18, D27, D36, D45]

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

AQ-17c The project owner shall provide the source test report(s) in accordance with the following specifications:

Source test results shall also include turbine and generator output under which the test was conducted.

Source test results shall also include turbine fuel flow rate under which the test was conducted.

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).

Emission data shall be expressed in terms of lbs/mm cubic feet.

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.

Emission data shall be expressed in terms of mass rate (lbs/hr). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

Source test results shall also include exhaust gas moisture content under which the test was conducted.

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

[District Rule 1303(a)(1) BACT, District Rule 1303(b)(2) offset, Rule 2005, 40 CFR 52.21 - PSD]

[Devices subject to this condition: D18, D27, D36, D45]

Verification: The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE DIESEL EMERGENCY POWER ENGINE (D61):

AQ-18 The project owner shall only use diesel fuel containing sulfur compounds less than or equal to 15 ppm by weight.

[District Rule 1303(a)(1) BACT, District Rule 1470]

[Devices subject to this condition: D61]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, ARB, U.S. EPA or Energy Commission (see **AQ-21**).

AQ-19 Deleted

AQ-19a The project owner shall operate and maintain this equipment according to the following specifications:

The Cleanair Systems "PERMIT" filter system installed for the equipment shall be operated according to the following criteria:

- (1) The maximum consecutive minutes at idle shall not exceed 240 minutes;
- (2) The number of 10-minute idle sessions before regeneration is required shall be after 24 consecutive sessions;
- (3) The minimum temperature/load/time for regeneration shall not be less than 40% load or 300 deg. C for 30% of operating time or 2 hrs, whichever is longer.

The Cleanair Systems "PERMIT" filter system installed for the equipment shall be provided with a data logging and alarm system to record and monitor the equipment's exhaust backpressure and temperature during operation.

[District Rule 1303(a)(1)]

[Devices subject to this condition: D61]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, ARB, U.S. EPA or Energy Commission (see **AQ-21**).

AQ-20 The project owner shall install and maintain a non-resettable elapsed time meter to accurately indicate the elapsed operating time of the emergency IC engine.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012]
[Devices subject to this condition: D61]

Verification: The project owner shall make the site available for inspection by representatives of the District, ARB, U.S. EPA or Energy Commission.

AQ-21 The project owner shall maintain records in a manner approved by the District for the following parameters or items in regards to the emergency IC engine:

Records obtained from a data logger and alarm system provided for use on the equipment's diesel particulate filter.

An engine operating log listing on a monthly basis:

- Date of operation,
- elapsed time of operation (in hours) and
- the reason for operation.

The total hours of operation for the previous calendar year shall be recorded sometime during the first 15 days of January each year.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D61]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, ARB, U.S. EPA or Energy Commission.

AQ-22 The project owner shall use the emergency IC engine only during utility failure periods, except for maintenance purposes or as described in **AQ-23**.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012]
[Devices subject to this condition: D61]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, ARB, U.S. EPA or Energy Commission (see **AQ-21**).

AQ-23 The project owner shall limit the operating time of the emergency IC engine to no more than 199 hours per year.

The total operating time allowed under this condition includes no more than 50 hours in any one year for maintenance and testing.

Operation of the engine beyond the 50 hr/yr allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power, emergency operation as defined in Rule 1470, or up to 30 min prior to a rotating outage, if the grid operator or utility 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.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012]

[Devices subject to this condition: D61]

Verification: The project owner shall submit the recorded data specified in condition **AQ-21**, including the hours of total operation, on an annual basis as part of the fourth Quarter Operational Report (see **AQ-8**).

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE DIESEL EMERGENCY FIRE PUMP (D58):

AQ-24 The project owner shall only use diesel fuel containing sulfur compounds less than or equal to 15 ppm by weight.

[District Rule 1303(a)(1) BACT, District Rule 1470]

[Devices subject to this condition: D58]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, ARB, U.S. EPA or Energy Commission (see **AQ-27**).

AQ-25 The project owner shall set and maintain the fuel injection timing of the fire pump IC engine at 9.7° retarded relative to standard timing.

[District Rule 1303(a)(1) BACT, District Rule 2005, 40 CFR 52.21 - PSD]

[Devices subject to this condition: D58]

Verification: The project owner shall make the site available for inspection by representatives of the District, ARB, U.S. EPA or Energy Commission.

AQ-26 The project owner shall install and maintain a non-resettable elapsed time meter to accurately indicate the elapsed operating time of the fire pump IC engine.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012, 40 CFR 52.21 - PSD]

[Devices subject to this condition: D58]

Verification: The project owner shall make the site available for inspection by representatives of the District, ARB, U.S. EPA or Energy Commission.

AQ-27 The project owner shall maintain records in a manner approved by the District for the following parameters or items in regards to the fire pump IC engine:

An engine operating log listing on a monthly basis:

- Date of operation,
- elapsed time of operation (in hours) and
- the reason for operation.

The total hours of operation for the previous calendar year shall be recorded sometime during the first 15 days of January each year.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, 40 CFR 52.21 - PSD]
[Devices subject to this condition: D58]

Verification: The project owner shall maintain records on site for a minimum of five years and make them available for inspection by request from representatives of the District, ARB, U.S. EPA or Energy Commission.

AQ-28 The project owner shall limit the operating time of the fire pump IC engine to no more than 199 hours per year.

The 199 hours per year shall include no more than 34 hours in any one year for maintenance and testing purposes.

[District Rule 1110.2, District Rule 1304(a) Modeling and Offset Exemption, District Rule 1401, District Rule 1470, District Rule 2012]
[Devices subject to this condition: D58]

Verification: The project owner shall submit the recorded data specified in condition **AQ-27**, including the hours of total operation, on an annual basis as part of the fourth Quarter Operational Report (see **AQ-8**).

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE COOLING TOWERS (E17):

AQ-29 For the two cooling towers associated with Units 3 and 4, the project owner shall submit drift eliminator design details and vendor specific justification for the correction factor to be used to correlate blowdown TDS to drift TDS and the amount of drift that stays suspended in the atmosphere in the equation in Condition **AQ-34** to the Commission at least 30 days prior to commencement of construction.

[Devices subject to this condition: E17]

Verification: 30 days prior to commencement of construction of the cooling towers, the project owner shall submit the information required above to the CPM.

AQ-30 For the two cooling towers associated with Units 3 and 4, the project owner shall submit cooling tower design details including the cooling tower type and materials of construction to the Commission at least 30 days prior to commencement of construction, and at least 90 days before the tower is operated.

[Devices subject to this condition: E17]

Verification: The project owner shall submit the information required above to the CPM 30 days prior to the commencement of construction of the cooling towers.

AQ-31 The project owner shall NOT use hexavalent chromium containing compounds in the cooling tower circulating water.

[Devices subject to this condition: E17]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

AQ-32 The project owner shall design and build the cooling towers for units 3 and 4 such that the drift eliminator drift rate of the cooling towers does not exceed 0.0006%.

[Devices subject to this condition: E17]

Verification: The project owner shall submit documentation from the selected cooling tower vendor that verifies the drift efficiency to the CPM 30 days prior to commencement of construction of the cooling towers.

AQ-33 The project owner shall limit the PM10 emissions from the cooling towers associated with units 3 and 4 as follows:

Each 10 cell cooling tower is not to exceed 70.1 lbs/day

[Devices subject to this condition: E17]

Verification: The project owner shall submit data and calculations on annual basis to the CPM as discussed in condition **AQ-34**.

AQ-34 The project owner shall demonstrate compliance with the PM10 daily emission limit (see **AQ-33**) as follows:

PM10 lb/day = circulating water recirculation rate * total dissolved solids concentration in the blowdown water * design drift rate * correction factor.

[Devices subject to this condition: E17]

Verification: The project owner shall compile the required data on a daily basis and submit the data and calculations annually in the fourth Quarter Operational Report (see **AQ-8**) to the CPM.

AQ-35 The project owner shall perform circulating water sample analyses by independent laboratory within 90 days of initial operation and weekly thereafter to determine the TDS within the cooling tower water. Alternatively, the project owner shall continuously measure cooling tower basin water conductivity for use in the calculation required by condition **AQ-34**.

[Devices subject to this condition: E17]

Verification: The project owner shall compile the required analyses and maintain the data on site for a minimum period of two years. The project owner shall make the site available for inspection by representatives of the District, ARB, U.S. EPA or Energy Commission.

THE FOLLOWING CONDITION OF CERTIFICATION PERTAINS TO THE GAS TURBINES, DUCT BURNERS AND EMERGENCY ENGINES (D18, D27, D36, D45, D58, D61, D21, D30, D39, D48):

AQ-36 The following condition is applicable to each of the four combustion turbines (D19, D27, D36, D45):

A. The gas turbines shall not be operated unless the facility holds 114,412 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first compliance 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, the gas turbines shall not be operated unless the operator demonstrates to the District that, at the commencement of each compliance year after the first compliance year of operation, the facility holds 107,552 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 following condition is applicable to each of the four duct burners (D21, D30, D39, D48):

B. The duct burner shall not be operated unless the facility holds 7,758 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first compliance 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, the duct burner shall not be operated unless the operator demonstrates to the District that, at the commencement of each

compliance year after the first compliance year of operation, the facility holds 7,293 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 following condition is applicable to the emergency fire pump engine (D58):

- C. The emergency fire pump IC engine shall not be operated unless the facility holds 841 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first compliance 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, the emergency fire pump IC engine shall not be operated unless the operator demonstrates to the District that, at the commencement of each compliance year after the first compliance year of operation, the facility holds 841 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 following condition is applicable to the emergency IC engine (D61):

- D. The emergency IC engine shall not be operated unless the facility holds 1,549 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first compliance 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, the emergency IC engine shall not be operated unless the operator demonstrates to the District that, at the commencement of each compliance year after the first compliance year of operation, the facility holds 1,549 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.

[District Rule 2005]

[Devices subject to this condition: D18, D27, D36, D45, D58, D61, D21, D30, D39, D48]

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District in each Quarterly Operational Report. (see **AQ-8**).

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE STORAGE TANK (D60):

AQ-37 The project owner shall vent the aqueous ammonia storage tank during filling procedures only to the vessel from which it is being filled.

[District Rule 1303(a)(1) BACT]
[Devices subject to this condition: D60]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

AQ-38 The project owner shall install and maintain a pressure relief valve with a minimum pressure set at 25 psig in the aqueous ammonia storage tank.

[District Rule 1303(a)(1) BACT]
[Devices subject to this condition: D60]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE DRY STORAGE EQUIPMENT (D63, D64, D65):

AQ-39 The project owner shall operate and maintain this equipment according to the following specifications:

The bin vent filter shall be in the ON position at all times during the filling of the silo, and for at least 1 hour after filling has ended.

The filling of the silo shall be stopped immediately if the high level switch is activated.

The storage silo shall not be filled past the high level switch.

The unload truck hose shall be equipped with a dust cap. The dust cap shall be in place at all times except during the actual filling operation.

[District Rule 1303(a)(1) BACT, District Rule 403]
[Devices subject to this condition: D63, D64, D65]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE ABRASIVE BLASTING EQUIPMENT (E14):

AQ-40 The project owner shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the SCAQMD reporting requirements.

The project owner shall keep the records in accordance with the SCAQMD recordkeeping requirements and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions; and
- 3). Date and time visible emission was abated.

[District Rule 1303(a)(1) BACT, District Rule 403]

[Devices subject to this condition: E14]

Verification: The project owner shall make the site and records available for inspection by representatives of the ARB, U.S. EPA or Energy Commission. Whenever the project owner is required to notify the SCAQMD or provide a written report, the project owner shall also notify and submit any documents to the CPM following the same time frames required by the SCAQMD.

AQ-41 The project owner shall perform an annual inspection of the equipment and filter media for leaks broken or torn filter media, an improperly installed filter media

[District Rule 3004(a)(4) Periodic Monitoring]

[Devices subject to this condition: E14]

Verification: The project owner shall make the site and records available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

AQ-42 The project owner shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

- D. The name of the person performing the inspection and/or maintenance of the dust collector,
- E. The date, time and results of the inspection,
- F. The date, time, and description of any maintenance or repairs resulting from the inspection.

[District Rule 3004(a)(4) Periodic Monitoring]

[Devices subject to this condition: E14]

Verification: The project owner shall make the site and records available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

THE FOLLOWING CONDITIONS OF CERTIFICATION PERTAIN TO THE FACILITY:

- AQ-42** 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:
- c) 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
 - d) 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.
- [District Rule 401]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission. The project owner shall report any complaint to the CPM within 24 hours of receiving the complaint.

- AQ-43** The project owner shall not use diesel fuel containing sulfur compounds in excess of 0.05 percent by weight.
- [District Rule 431.2]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

- AQ-44** The project owner shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.
- [District Rule 431.2]

Verification: The project owner shall make the site available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

- AQ-45** The project owner shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):
- C. For architectural applications where no thinners, reducers or other VOC containing materials are added, maintain semi-annual records for all coating consisting of:
 - (d) Coating type,
 - (e) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings,
 - (f) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.
 - D. For architectural applications where thinners, reducers or other VOC containing materials are added, maintain daily records for all coating consisting of:

- (d) Coating type,
- (e) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings,
- (f) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.

[District Rule 3004(a)(4) Periodic Monitoring]

[Devices subject to this condition: E16]

Verification: The project owner shall make the site and records available for inspection by representatives of the ARB, U.S. EPA or Energy Commission.

REFERENCES

- CEC 2001 – California Energy Commission – Commission Decision (TN 19233), March 21, 2001
- CEC 2001a – California Energy Commission – Notice of Exemption: Approval of request to Modify Mountainview Power Project Conditions of Certification AQ-C2 to Allow the Use of Ultra-Low Sulfur Fuel in Conjunction with 1996 ARB Certified Engines in Place of Oxidizing Soot Filters (TN 21397). July 12, 2001
- CEC 2001b– California Energy Commission – Approval of Request for General Arrangement Amendment Changes to Conditions of Certification AQ-9 and AQ-10 Addition of Condition WQ-8 (TN 22349). September 18, 2001
- CEC 2002– California Energy Commission – Approval of Project Changes: Allowing use of Caterpillar Model 3512B and Deletion of Condition of Certification AQ-19 (TN 24026). January 11, 2002
- CEC 2004– California Energy Commission –Order Approving a Petition to Modify Air Quality Conditions of Certification (TN 32334). September 14, 2004
- CEC 2006– California Energy Commission –Order Approving Petition to Increase The Volatile Organic Compound VOC Emission Limits and Change The Equipment Description of The Emergency Diesel Generation (TN 37314). July 7, 2006
- SCAQMD 2017 – South Coast Air Quality Management District – Permit to Operate Draft Evaluation AN 593784
- SCAQMD 2017a – South Coast Air Quality Management District – Draft Proposed Title V Permit Revision AN 593784
- SCE 2017 – Mountainview Generating Station –Carbon Monoxide Control Catalysts Replacement (TN 220661), docketed August 11, 2017.

APPENDIX B

MOUTAINVIEW GENERATING STATION (00-AFC-02C)
Petition to Amend Commission Decision
HAZARDOUS MATERIALS MANAGEMENT
Brett Fooks

INTRODUCTION

The replacement of the carbon monoxide (CO) catalyst on the 2 combustion turbines would not have a significant effect on power plant hazardous materials

CONCLUSIONS AND RECOMMENDATIONS

During the installation of the replacement CO catalyst, several hazardous materials will be used onsite. Similar to equipment maintenance activities, these materials would include solvents, gasoline, lubricants, and welding gases which are already included in the annual compliance report under the existing **HAZ-1** condition. No extremely hazardous or regulated hazardous materials will be used on site specifically for the replacement of the carbon monoxide catalysts on the two existing turbines. Therefore, with petitioner's continued compliance with existing conditions of certification, **HAZ-1** specifically, the proposed modification would not have a significant effect on the environment and would continue to comply with all applicable LORS. .

MOUTAINVIEW GENERATING STATION (00-AFC-02C)
Petition to Amend Commission Decision
SOCIOECONOMICS
Ellen LeFevre

INTRODUCTION

The replacement of the carbon monoxide air pollution emission control catalysts in the gas turbines would take place during a scheduled maintenance outage. The workforce is expected to reach a peak of approximately 125 individuals on day shift and approximately 50 individuals on night shift. Approximately 10% of these individuals will be contractor personnel associated with the catalyst replacement. The remaining individuals will consist of SCE staff and contractors to perform plant maintenance activities. From a socioeconomics standpoint, the proposed amendment would have insignificant workforce-related impacts on housing and community services. Condition of Certification **SOCIO-1**, local workforce recruiting and materials procurement, applies to the amendment.

CONCLUSIONS AND RECOMMENDATIONS

The proposed amendment would replace all four of the carbon monoxide (CO) air pollution emissions control catalysts during the upcoming planned maintenance outage scheduled for October 2017. The outage would last approximately two to three weeks. Existing parking areas within the plant would accommodate this workforce.

The workforce is expected to reach a peak of approximately 125 individuals on day shift and approximately 50 individuals on night shift. Approximately 10% of these individuals will be contractor personnel associated with the catalyst replacement. The remaining individuals will consist of SCE staff and contractors to perform plant maintenance activities. SCE expects that each day's work will involve two 12-hour shifts, each beginning and ending at 7 a.m. and 7 p.m. The construction needs for the project modification would not affect the workforce in the Riverside-San Bernardino-Ontario Metropolitan Statistical Area (Riverside and San Bernardino Counties).

The proposed amendment would not cause an impact under the California Environmental Quality Act Guidelines, Appendix G XIII, XIV, and XV.

There are two Conditions of Certification for Socioeconomics in the March 2001 Energy Commission Decision. The proposed Amendment would not affect the Socioeconomics Conditions of Certification **SOCIO-2** (school impact fees). Condition of Certification **SOCIO-1** would be applicable to the proposed amendment. **SOCIO-1** states:

The project owner and its contractors and subcontractors shall recruit employees and procure materials and supplies from within San Bernardino, Riverside, Los Angeles, and Orange Counties, and encourage such recruitment and purchases within the local vicinity of the proposed project area first unless:

- To do so will violate federal and/or state statutes;
- The materials and/or supplies are not available; or
- Qualified employees for specific jobs or positions are not available; or,

- There is a reasonable basis to hire someone for a specific position from outside the local area.

Verification: At least thirty (30) days prior to the start of earth moving activities, the project owner shall submit to the Energy Commission Compliance Project Manager (CPM) copies of contractor, subcontractor, and vendor solicitations and guidelines stating hiring and procurement requirements and procedures. In addition, the project owner shall notify the CPM in each Monthly Compliance Report of the reasons for any planned procurement of materials or hiring outside the local regional area that will occur during the next two months.

The proposed Amendment would have no significant workforce-related impacts on housing and community services.

MOUNTAINVIEW GENERATING STATION (00-AFC-02C)
Petition to Amend Commission Decision
TRAFFIC AND TRANSPORTATION
Scott Polaske

INTRODUCTION

Southern California Edison Company (SCE; project owner) filed a Petition to Amend (PTA) for replacement of the carbon monoxide air pollution emissions control catalysts (CO catalyst) in the gas turbines at the Mountainview Generating Station.

CONCLUSIONS AND RECOMMENDATIONS

Construction equipment and workers associated with the proposed modifications would generate a maximum of 13-17 daily construction workforce trips and 4 total truck trips over the course of approximately 2-3 weeks. The amount of construction traffic would have a less than significant impact on roadway level of service and intersection delay.

MOUNTAINVIEW GENERATING STATION (00-AFC-02C)
Petition to Amend Commission Decision
WASTE MANAGEMENT
Garry Maurath

INTRODUCTION

Southern California Edison Company (SCE; project owner) filed a Petition to Amend (PTA) for replacement of the carbon monoxide air pollution emissions control catalysts (CO catalyst) in the gas turbines at the Mountainview Generating Station.

CONCLUSIONS AND RECOMMENDATIONS

Based on the information provided by the project owner, staff concludes the proposed modifications would not result in additional significant environmental impacts in terms of waste management in comparison with the original analysis for the approved project, provided the owner complies with Conditions of Certification **WASTE-2** through **WASTE-4**. The proposed construction would not require any change to the conditions of certification related to waste management adopted by the Energy Commission in their Decision of March 2001. Staff also concludes that compliance with current waste management LORS and conditions specified by the Decision would ensure mitigation of the effects of waste management at the site.

MOUTAINVIEW GENERATING STATION (00-AFC-02C)
Petition to Amend Commission Decision
WORKER SAFETY/FIRE PROTECTION
Brett Fooks

INTRODUCTION

The replacement of the carbon monoxide (CO) catalyst would not have a significant effect on power plant worker safety.

CONCLUSIONS AND RECOMMENDATIONS

By continuing to comply with the existing conditions of certification, the petitioner's proposed replacement of the CO catalyst for the two existing turbines would not have a significant effect on the environment, and would continue to comply with all applicable LORS. Activities to be performed during the construction duration required for the installation would comply with worker safety and fire safety requirements already contained in health and safety plans utilized for construction of the main facility per Condition of Certification **WORKER SAFETY-1**.