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SACRAMENTO, CA 95814-5512
www.energy.ca.gov

DATE: November 7, 2017

TO: Interested Parties

FROM: John Heiser, Project Manager

SUBJECT: **Blythe Energy Center Petition to Amend (99-AFC-08C) Staff Analysis on Petition to Amend**

On September 7, 2017, Blythe Energy Inc. LLC (subsidiary of AltaGas) (Petitioner), docketed a Petition to Amend (PTA) the Final Decision (Decision) for the Blythe Energy Project (BEP) (99-AFC-08C). The proposal is to modify the existing Air Quality Condition of Certification **AQ-T7**, increasing the carbon monoxide (CO) limit from 97 tons per year to 175 tons per year, and Air Quality Condition of Certification **AQ-T7a**, eliminating combined annual emission limits of nitrogen oxides (NOx), CO, volatile organic compound (VOC), sulfur oxides (SOx) and particulate matter less than 10 microns (PM10 for BEP and Blythe Energy Project Phase II (BEP II) (also known as Sonoran Energy Project or SEP).

Energy Commission staff (staff) reviewed the petition and assessed the impacts of this proposal on environmental quality and on public health and safety and for conformance with all applicable laws ordinances, regulations, and standards (LORS). Staff determined that **Air Quality** is the only technical area affected by the petition. Air Quality staff propose the modification of Condition of Certification **AQ-T7** addressing CO limits to make it consistent with the proposed changes to BEP's permit issued by Mojave Desert Air Quality Management District (District). Condition of Certification **AQ-T7a** was deleted because it is no longer applicable. In addition, staff proposes minor modifications to several other air quality conditions of certification to reflect additional changes that have been made by the District to BEP's Title V permit.

It is staff's conclusion that, with the implementation of these changes, the project would remain in compliance with applicable LORS, and the proposed modifications would not cause a significant impact on the environment (Cal. Code Regs., tit. 20, § 1769). Energy Commission staff intends to recommend approval of the petition at the December 13, 2017, Business Meeting of the Energy Commission.

The Energy Commission's webpage for this facility, http://www.energy.ca.gov/sitingcases/blythe/index.html, has a link to the petition and the staff analysis. After the Commission Decision, the Energy Commission's Order regarding this petition will also be available from the same webpage.

This notice is being mailed to the Energy Commission's list of interested parties and property owners adjacent to the facility site. It will also be emailed to the facility listserv. The listserv is an automated Energy Commission 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 webpage to the box labeled "Subscribe," and provide the requested contact information.

Public Comment: Those who wish to comment on the analysis are asked to submit their comments by 5:00 p.m., December 7, 2017. Those who wish to comment can use the Energy Commission's e-Commenting feature as follows: Go to the Energy Commission's BEP webpage and click on the "Comment on this Proceeding" link. In the form, provide the required information—your full name, email address, the comment title, and either a comment or an attached document. The comment title should be "[Your Name]'s Comments re BEP Petition." Type your comments into the "Comment Text" field, or upload and attach a document with your comments. The maximum upload file size is 10MB, and only .doc, .docx, or .pdf attachments will be accepted. Enter the phrase that is used to prevent spamming. Then click on the "Agree and Submit your Comments" button to submit your comments to the Energy Commission Dockets Unit. When your comments are accepted and docketed, you will receive an email with a link to them on the facility webpage.

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

California Energy Commission
Dockets Unit, MS-4
Docket No. 99-AFC-08C
1516 Ninth Street
Sacramento, CA 95814-5512

All filed comments and materials accepted by the Dockets Unit will be added to the facility docket log and become publically accessible on the Energy Commission's webpage for the facility.

Contact: If you have questions about this notice, please contact John Heiser, Project Manager, at (916) 653-8236, or via e-mail at John.Heiser@energy.ca.gov.

Public Participation: The Energy Commission's Public Adviser's Office is available to provide the public with an understanding of the proceedings and to make recommendations for meaningful participation. For assistance, contact Alana Mathews, Public Adviser, at (916) 654-4489, or toll free in California at (800) 822-6228, or by email at publicadviser@energy.ca.gov.

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

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STAFF ANALYSIS

BLYTHE ENERGY CENTER
(99-AFC-08C)

PETITION TO AMEND

BLYTHE ENERGY CENTER
(99-AFC-08C)
PETITION TO AMEND THE COMMISSION DECISION
STAFF ANALYSIS

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INTRODUCTION

On September 7, 2017, Blythe Energy Inc., LLC (subsidiary of AltaGas) (Petitioner), docketed a Petition to Amend (PTA) the Final Decision for the Blythe Energy Project (BEP) (99-AFC-08C). The proposal is to modify the existing Air Quality Condition of Certification **AQ-T7**, increasing the carbon monoxide (CO) limit from 97 tons per year to 175 tons per year. In August 2015, AltaGas submitted a PTA to modify the BEP Phase II project and change the name to Sonoran Energy Project (Sonoran). AltaGas withdrew the Sonoran petition on August 11, 2017, and the project name reverted back to BEP Phase II. The current request is reflective of the AltaGas withdrawal of the Sonoran PTA to combine both licensed projects (BEP and BEP Phase II) under the same Mojave Desert Air Quality Management District (District) stationary source permit. As a result of the Sonoran withdrawal, this PTA also proposes to remove Air Quality Condition of Certification **AQ-T7a**, eliminating combined annual emission limits of nitrogen oxides (NOx), CO, volatile organic compound (VOC), sulfur oxides (SOx) and particulate matter less than 10 microns (PM10) for BEP and BEP II.

The amendment proposed by this petition would modify existing Air Quality Condition of Certification **AQ-T7**, addressing CO limits, to make it consistent with the proposed changes to the BEP's permit issued by the District. Staff also proposes deleting AIr Quality Condition of Certification **AQ-T7a,** that is no longer applicable and making additional minor modifications to reflect changes made by the District to the BEP's Title V permit that do not involve modifications to plant equipment, design, or operation.

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

This Staff Analysis contains the Energy Commission staff's detailed evaluation of the technical area of **Air Quality**. The basis for staff's determination in all other technical areas is also provided.

PROJECT LOCATION AND DESCRIPTION

BEP is a nominal 520–megawatt (MW) combined-cycle power plant located in the city of Blythe, north of Interstate 10 and approximately 7 miles west of the California/Arizona border. The project was acquired by AltaGas Power Holdings (U.S.) Inc. in 2013. BEP was originally licensed with permitted emissions of 621 tons per year of CO. In May of

2016, the allowable emission was reduced to 97 tons of CO per year to reflect actual emissions performance and the combined emissions for BEP and BEP II) were limited to 197 tons per year. The facility was considered a minor source for air regulatory purposes. The BEP II was considered part of the same stationary source under the applicable air regulations when the District issued air permits for both BEP and Sonoran (Blythe II). Since AltaGas withdrew its petition seeking to amend the BEP Phase II, BEP is now expected to be called upon by the California Independent System Operator (California ISO) to start up more frequently and to operate more often. As a result, AltaGas is aware that the current annual CO limit in BEP's air permit and the Energy Commissions' conditions of certification could restrict BEP's ability to operate as often as needed. The purpose of the proposed amendment is to increase the facility-wide annual emission limits for carbon monoxide (CO) from the current BEP limit to reflect the expected future emissions from the facility.

DESCRIPTION OF PROPOSED MODIFICATIONS

The modifications proposed include the following:

The amendment proposed by this petition would modify existing Air Quality Condition of Certification **AQ-T7** and delete **AQ-T7a** to make them consistent with the proposed changes to the District permit.

NECESSITY FOR THE PROPOSED MODIFICATIONS

Blythe Energy Center's request for amending the Air Quality Condition of Certification **AQ-T7**, will allow BEP to provide additional ancillary services and to provide more flexibility to meet California ISO grid needs. The request for deleting the Air Quality Condition of Certification **AQ-T7a** is also necessary due to the withdrawal of BEP II.

STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

Energy Commission technical staff reviewed the petition for potential environmental effects and consistency with applicable LORS. Because the petition proposes no physical changes to the BEP, staff determined that **Air Quality** and **Public Health** are the only technical areas affected. Air Quality staff concludes with the modifications to the conditions of certification, the amended BEP would not have a significant impact on the environment and the project would continue to comply with LORS. 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			Revised Conditions of Certification Recommended
	Technical Area Not Affected	No Significant Environmental Impact or LORS Inconsistency*	Process As Amendment	
Air Quality			X	X
Biological Resources	X			
Cultural Resources	X			
Efficiency	X			
Facility Design	X			
Geology and Paleontology	X			
Hazardous Materials Management	X			
Land Use	X			
Noise and Vibration	X			
Public Health		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			

*There is no possibility that the modifications may 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)).

Staff has determined that the following technical or environmental areas are not affected by the proposed changes: **Biological Resources, Cultural Resources, Efficiency, Facility Design, Geology and Paleontology, Hazardous Materials Management, Land Use, Noise and Vibration, Reliability, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Transmission System Engineering, Visual Resources, Waste Management, and Worker Safety and Fire Protection**

BIOLOGICAL RESOURCES

The proposal to increase the existing facility-wide annual mass emissions limit for carbon monoxide (CO) to equal the combined total CO limit currently applicable to Blythe Energy Project and previously planned Sonoran project (a.k.a. Blythe II), would not affect biological resources. No physical changes to the facility would occur. No changes to the limits for other pollutants other than CO (e.g. NOx) would occur.

LAND USE

Revisions of two conditions of certification related to air emission limits would not result in changes in land use or addition of equipment or structures. The proposed modifications would not have the potential to affect land use.

SOCIOECONOMICS

Revisions of two conditions of certification related to air emission limits would not result in the need to employ more workers. The proposed modifications would not have the potential to affect socioeconomics.

TRAFFIC AND TRANSPORTATION

Revisions of two conditions of certification related to air emission limits would not result in any the generation of, or change to, existing vehicle trips. The proposed modifications would not have the potential to affect traffic.

VISUAL RESOURCES

The proposed modifications would not change the visual characteristics of the project site. Revisions of two conditions of certification related to air emission limits would not result in any changes to views or visual characteristics.

ENVIRONMENTAL JUSTICE (EJ)

Environmental Justice – Figure 1 shows 2010 census blocks in the six-mile radius of the Blythe Energy Project with a minority population greater than or equal to 50 percent. The population in these census blocks represents an EJ population based on race and ethnicity as defined in the United States Environmental Protection Agency's *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*.

Based on California Department of Education data in the **Environmental Justice – Table 1** and presented **Environmental Justice – Figure 2**, staff concluded that the percentage of those living in the Palo Verde Unified School District (in a six mile radius of the project site), and enrolled in the free or reduced price meal program, is larger than that in the reference geography, and thus is considered an EJ population based on low income as defined in *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*.

Environmental Justice – Table 1
Low Income Data within the Project Area

SCHOOL DISTRICT IN SIX-MILE RADIUS	Enrollment Used for Meals	Free or Reduced Price Meals	
Palo Verde Unified School District	3,096	2,280	73.6%
REFERENCE GEOGRAPHY			
Riverside County	428,496	270,907	63.2%
Source: CDE 2017. California Department of Education, DataQuest, Free or Reduced Price Meals, District level data for the year 2016-2017, <http://dq.cde.ca.gov/dataquest/>.			

ENVIRONMENTAL JUSTICE CONCLUSIONS

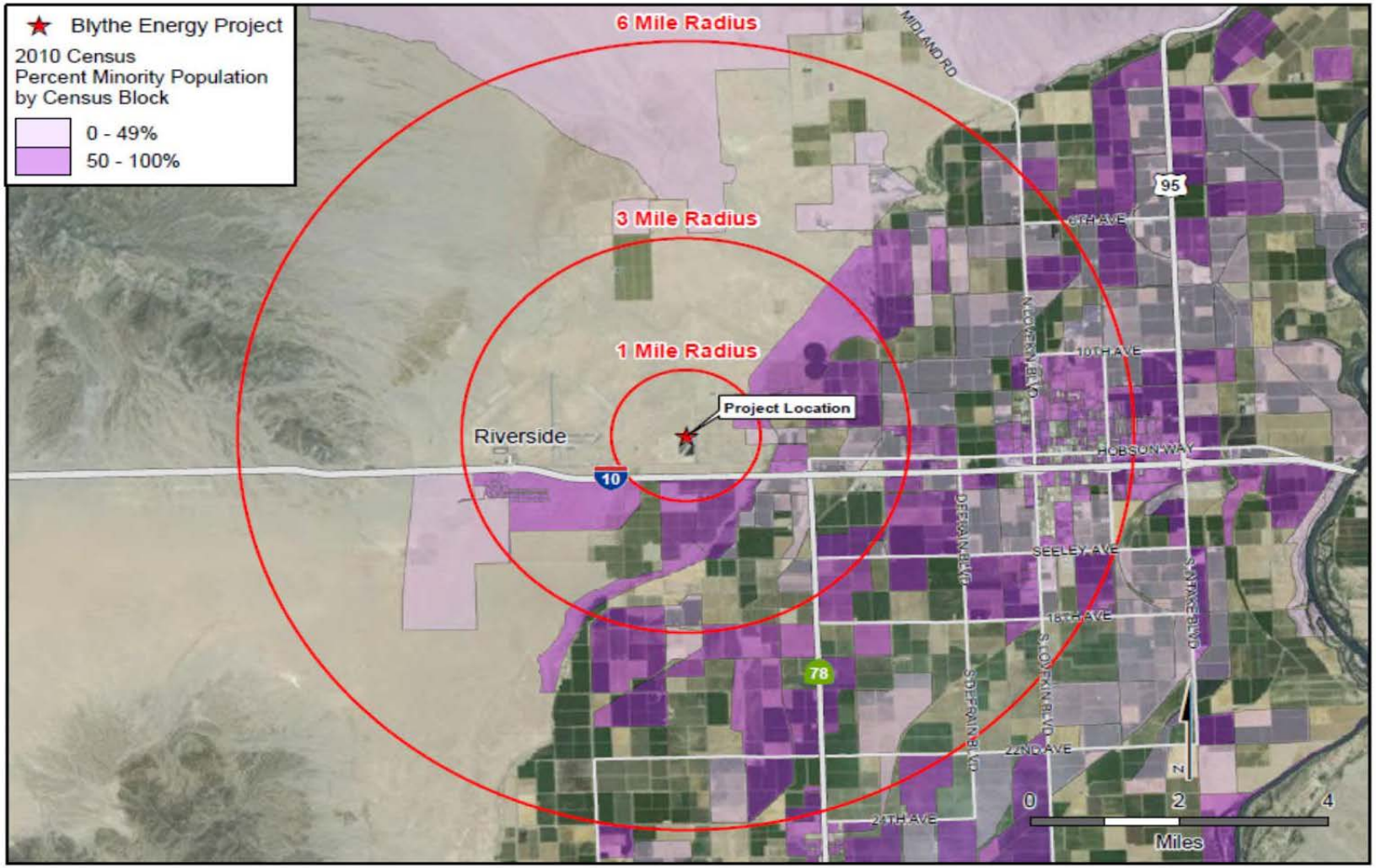
If affected, the following technical areas discuss impacts to EJ populations: Air Quality, Cultural Resources (Indigenous People), Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, and Waste Management. None of these areas are affected by the proposed petition other than Air Quality and Public Health. In the technical area **Air Quality**, staff proposes changes to conditions of certification in the Decision. Staff has determined that by adopting the proposed changes to the existing conditions of certification, the amended project would not cause significant air quality impacts. With the implementation of these conditions, impacts would be less than significant for any population in the project's six-mile radius, including the EJ population represented in **Environmental Justice – Figure 1 and Figure 2** and **Table 1**. For **Public Health**, impacts would be less than significant for any population in the project's six-mile radius, including the EJ population.

STAFF RECOMMENDATIONS AND CONCLUSIONS

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

- The proposed modifications would not change the findings in the Energy Commission's Decision pursuant to Title 20, California Code of Regulations, section 1748(b)(5):
    - There would be no new or additional unmitigated, significant environmental impacts associated with the proposed modification;
- The facility would remain in compliance with all applicable LORS;
- The modifications proposed in the petition would enable the project to increase the current annual carbon monoxide (CO) emission limits from 97 tons/year to 175 tons/year to enhance operational flexibility;
- The proposed modifications would be beneficial to the project owner and public because it would allow BEP to operate with greater flexibility to meet California ISO's grid needs.

ENVIRONMENTAL JUSTICE - FIGURE 1
Blythe Energy Project - Census 2010 Minority Population by Census Block



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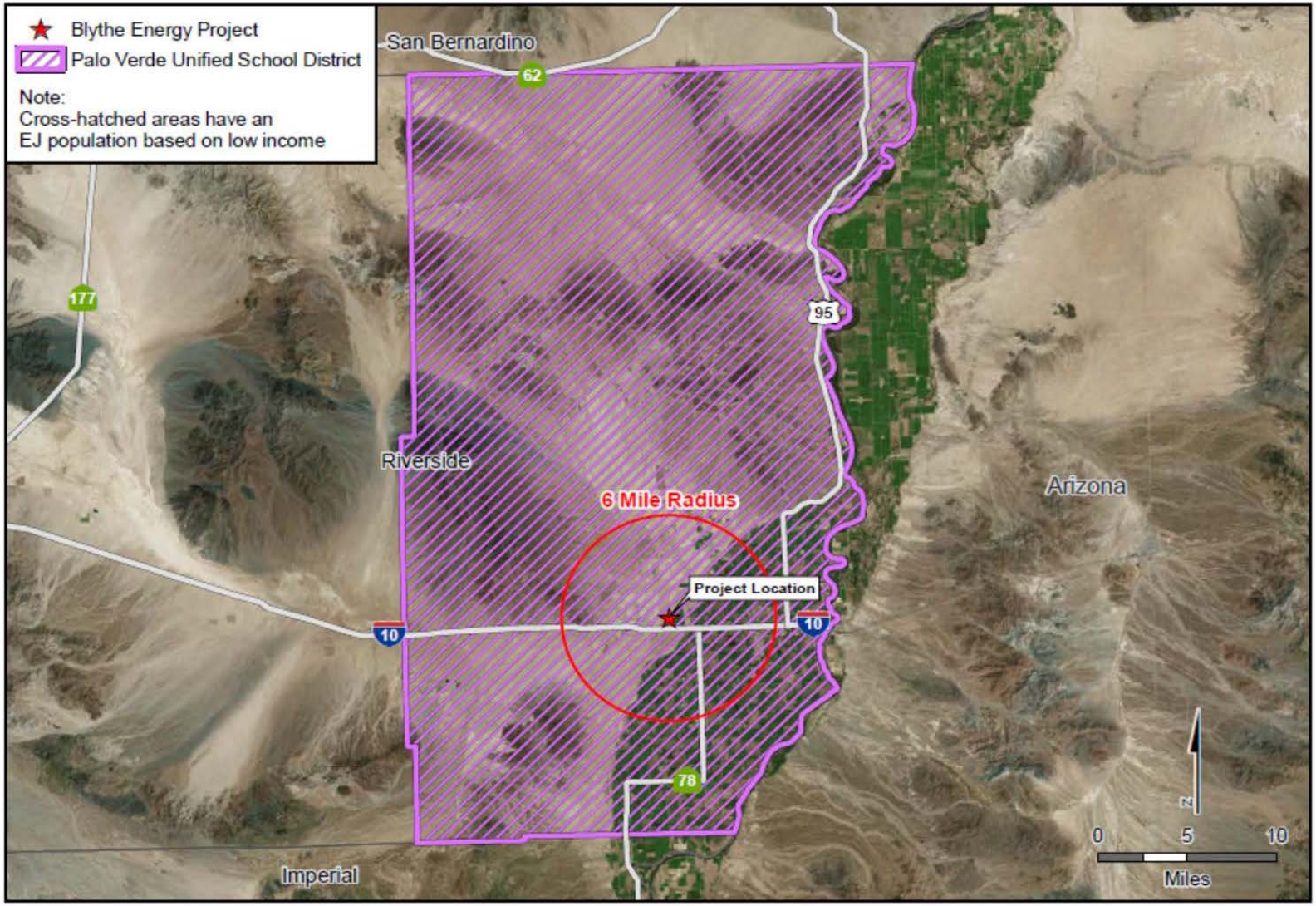
SOURCES: Census 2010 PL 94-171 Data

ENVIRONMENTAL JUSTICE - FIGURE 2

Blythe Energy Project - Environmental Justice Population Based on a Low Income Population



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SOURCES: TIGER Data, CA Dept. of Education Data Quest

BLYTHE ENERGY PROJECT (99-AFC-08C)
Petition to Amend the Commission Decision
AIR QUALITY
Tao Jiang, Ph.D., P.E.

SUMMARY OF CONCLUSIONS

In this petition to amend the Blythe Energy Project (BEP), the petitioner proposes to modify the existing air quality conditions of certification. Staff concludes that with the adoption of the attached conditions of certification, the amended BEP would not result in significant adverse air quality related impacts, and that the BEP would continue to comply with all applicable federal, state, and Mojave Desert Air Quality Management District (District) air quality laws, ordinances, regulations, and standards (LORS).

INTRODUCTION

On September 7, 2017, Blythe Energy Inc. filed a petition to amend (PTA) with the Energy Commission requesting to change certain air quality conditions of certification for the BEP (BEP 2017). The BEP was originally certified by the Energy Commission on March 21, 2001 and began commercial operations in July 2003. In 2013, the BEP was acquired by AltaGas Power Holdings (U.S.) Inc. The facility is a nominal 520-megawatt, natural gas-fired, combined-cycle power plant located in the city of Blythe.

The amendment requests to increase annual carbon monoxide (CO) emissions limits from 97 tons/year to 175 tons/year to enhance operational flexibility. The amendment proposes to modify one air quality condition of certification and eliminate another. In addition, staff also proposes to modify several air quality conditions of certification to reflect additional changes that have been made by the District to the facility's Title V permit. However, these Title V modifications do not involve significant modifications to any plant equipment, facility design, or operating parameters. All Title V changes have been reviewed and approved by the District in a document titled "Preliminary Determination on Title V Federal Operating Permit Significant Modification" (MDAQMD 2017) issued on September 28, 2017. The final determination is expected by November 18, 2017.

AMENDMENT HISTORY

BEP was certified by the Energy Commission on March 21, 2001 (CEC 2001) and began commercial operations in July 2003. The Energy Commission approved a Petition to Modify Air Quality Conditions in 2005 (CEC 2005), including CO emission limits, startup/shutdown emission limits and duration limits. In January 2015, the Energy Commission approved the addition of a turndown upgrade package to the two existing combustion turbines (CEC 2015a). In July 2015, the Energy Commission approved a petition to reduce allowable annual oxides of nitrogen (NOx), CO, and particulate matter less than 10 microns (PM10) emissions (CEC 2015b). In June 2016, the Energy

Commission approved another petition to reduce PM10 and oxides of sulfur (SOx) emissions (CEC 2016).

The current amendment proposes changes to several air quality conditions of certification. More specifically:

- Increase the annual CO emissions limit (AQ-T7) from 97 tons/year to 175 tons/year; and
- Eliminate combined annual emission limits of NOx, CO, volatile organic compound (VOC), SOx and PM10 for BEP and Blythe Energy Project Phase II (BEP II) (also known as Sonoran Energy Project or SEP) (AQ-T7a), which has been withdrawn by the owner as described more fully below.

In addition, staff also recommends administrative changes to several air quality conditions to reflect those made by the District to the facility's Title V permit.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS - COMPLIANCE

BEP is subject to all the LORS described in the Decision for BEP (CEC 2001) and previous amendments (CEC 2005, CEC2015a, CEC 2015b and CEC2016). The analysis of this amendment would not change any LORS.

ANALYSIS OF REQUESTED CHANGES

Increase of Annual Emissions Limit

AltaGas owns the existing BEP and was proposing to build the BEP II immediately adjacent to BEP. On August 7, 2015, AltaGas filed an amendment with the Energy Commission to change the generation technology of BEP II. As a part of the amendment, the name of the project was changed to SEP. However, AltaGas no longer plans to develop SEP and their license application for SEP was withdrawn on August 11, 2017. The current annual CO emissions limit in the BEP license was approved based on the facility's expected operations with Blythe II available for operation as well. Without BEP II, BEP is expected to be called upon more often by the California Independent System Operator. This would result in more startups and increased annual operating hours.

CO emissions during turbine startups are higher than those during normal operation. Therefore an increased number of startups is expected to result in higher annual CO emissions from the facility. **Air Quality Table 1** shows the expected operating scenario and related emissions. Based on the proposed operations scenario, the project owner proposed to increase the current annual CO emissions limits from 97 tons/year to 175 tons/year to enhance operational flexibility. CO impacts were evaluated in the original application with the currently expected CO emissions rate of 400 lbs/event per startup and 10 lbs/hour during routine operations. The requested changes on the annual

emission limits do not change the emission rates and therefore do not result in any changes on the CO impacts.

Annual NOx and VOC emissions are also expected to increase as a result of more startups and increased annual operating hours. However, the current annual limits for NOx and VOC are expected to be adequate for future operations and therefore no increases are requested. The emissions of PM10 and SOx are tied to fuel use. The project owner did not request an increase of the allowable annual fuel use; therefore no increases of annual limits for PM10 and SOx are requested.

Air Quality Table 1
Maximum Expected Operation Scenario and Associated Emissions

Operating Scenario	Twice daily cycling on weekdays (no weekend operation)
Number of Startups/shutdowns	400
Baseload without DUCT firing hours	280
Baseload with DUCT firing hours	1120
Startup/shutdown NOx (lbs/event)	190
Startup/shutdown CO (lbs/event)	400
Baseload without DUCT firing NOx (lbs/hr)	13.28
Baseload with DUCT firing NOx (lbs/hr)	14.18
Baseload CO (lbs/hr)	10
Annual NOx (tons/year)	95.6
Annual CO (tons/year)	174.0

Administrative Changes to Air Quality Conditions

On March 20, 2015, the project owner submitted a request to the District to cancel the permit for a portable diesel IC engine, a non-certified, emergency fire pump (District Permit Number: E008981). This portable fire pump has never been used and the project owner does not plan to use it. The facility's fire system will continue to be supported by a stationary electric fire pump and a stationary diesel-fueled emergency fire pump. Therefore, staff proposes to delete the descriptions and air quality conditions of certification related to the portable diesel fire pump.

In addition, a condition of certification regarding the source tests ports and platforms has been added to the District Title V permit. Staff proposes to add the same condition to reflect this change in the facility's Title V permit.

ENVIRONMENTAL JUSTICE IMPACTS

Environmental Justice Figure 1, Figure 2, and **Environmental Justice Table 1** in the **Executive Summary** section show the presence of an environmental justice population based on minority and low income populations located within a six-mile radius of BEP. Air quality impacts from the proposed changes are considered less than significant including impacts to the environmental justice population. No changes to the facility's mitigation measures are being proposed, including emission reduction credits (ERCs)

required to comply with local District rules. 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.

CONCLUSIONS AND RECOMMENDATIONS

The requested changes would conform to applicable federal, state, and District LORS. Therefore the amended facility would not cause any significant adverse air quality impacts, provided that the following conditions of certification are included. Staff recommends that the revised conditions of certification be approved as shown below.

AMENDED CONDITIONS OF CERTIFICATION

Below is a list of conditions of certification that staff recommends to be revised from those approved in the 2001 Energy Commission Final Decision (CEC 2001) and the 2005 (CEC 2005), January 2015 (CEC 2015a), July 2015 (CEC 2015b) and June 2016 (CEC 2016) Orders Approving Petitions to Amend. ~~Strikethrough~~ is used to indicate deleted language and **underline and bold** is used for new language. **Appendix A** contains a complete list of applicable conditions of certification, assuming the staff-proposed changes are approved by the Energy Commission.

DISTRICT PRELIMINARY DETERMINATION ON TITLE V FEDERAL OPERATING PERMIT SIGNIFICANT MODIFICATION

AQ-T7 Emissions from all units at this facility, including the cooling towers, shall not exceed the following emission limits, based on a rolling 12 month summary:

a. NOx —97 tons/year, verified by CEMS.

b. CO —~~97~~**175** tons/year, verified by CEMS.

c. VOC as CH_4 — 24 tons/year, verified by compliance tests and hours of operation in steady-state, pre-mix mode.

d. SOx as SO_2 — 12 tons/year, verified by fuel sulfur content and fuel use data.

e. PM10 —56.9 tons/year, verified by compliance tests and hours of operation.

These limits shall apply to all emissions from all units at this facility, and shall include emissions during all modes of operation, including startup, shutdown and malfunction.

Verification: The project owner shall submit the following in each Quarterly Operations Report: All continuous emissions data reduced and reported in accordance with the District approved CEMS protocol; a list of maximum hourly, maximum daily, monthly, total quarterly, total calendar year, and rolling 12-month emissions of NO_x, CO, PM10, VOC and SO_x (including calculation protocol); total monthly and rolling 12-month fuel use in the gas turbines and duct burners; average NO_2 concentration and average CO mass emission rate for all operating periods except during startup, shutdown and malfunction for each gas turbine and associated duct burner, calculated on a rolling 12-month basis; a log of all excess emissions, including the information regarding malfunctions/breakdowns required by District Rule 430; operating parameters of emission control equipment, including but not limited to ammonia injection rate, NO_x emission rate and ammonia slip; any maintenance to any air pollutant control system (recorded on an as-performed basis); and any permanent changes made in the plant

process or production that could affect air pollutant emissions, and when the changes were made.

~~**AQ-T7a** Emissions from all permit units at the Blythe Energy Project, when combined with the emissions from all permitted units located at the adjacent Sonoran Energy Project, shall not exceed the following emission limits, based on a rolling 12 month summary:~~

~~a. NOx – 182.6 tons/year, verified by CEMS~~

~~b. CO - 175 tons/year, verified by CEMS~~

~~c. VOC as CH4 – 48.3 tons/year, verified by compliance tests and hours of operation in steady-state, pre-mix mode~~

~~d. SOx as SO_2 – 20.8 tons/year, verified by fuel sulfur content and fuel use data~~

~~e. PM10 - 97 tons/year, verified by compliance tests and hours of operation~~

~~These limits shall include emissions during all modes of operation, including startup, shutdown and malfunction. (NOTE: Pursuant to Regulation XIII the District considers the Blythe Energy Project and the Sonoran Energy Project to be one facility. Each of these projects has been separately certified by the Energy Commission pursuant to Public Resources Code Section 25500.)~~

~~**Verification**: See Verification of **AQ-T7**.~~

AQ-T11 ~~[Deleted]~~**The project owner shall provide stack sampling ports and platforms necessary to perform source tests required to verify compliance with District rules, regulations and permit conditions. The location of these ports and platforms shall be subject to District approval.**

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

The following Conditions of Certification apply to the non-certified diesel internal combustion (IC) engine, emergency fire pump (District Permit Number: E007961), ~~portable diesel IC engine, non-certified, emergency fire pump (District Permit Number: E008981),~~ propane IC engine, emergency generator (District Permit Number: E009492)

AQ-IC4 The diesel IC engines shall be limited to use for emergency power, defined as in response to a fire or due to low fire water pressure. In addition, the diesel IC engine (permit #E007961) shall be operated no more than 20 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 20-hour per year limit. ~~The portable diesel IC engine (permit #E008981) shall be operated no~~

~~more than 50 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 50 hour per year limit.~~

The propane IC engine shall be limited to use for emergency power, defined as in response to a fire or when commercially available power has been interrupted. In addition, the propane IC engine shall be operated no more than 100 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 100 hour per year limit.

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

AQ-IC9 The diesel IC engine (permit #E007961) is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines Title 17 CCR 93115 and 40 CFR 63 Subpart ZZZZ (RICE NESHAPs).

~~The portable diesel IC engine (permit #E008981) shall be regulated as a stationary diesel CI engine, as clarified in the definition of a portable source in 93115.4(a)(72). As a stationary source, this portable diesel IC engine is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Portable Compression Ignition Engines Title 17 CCR 93116 and 40 CFR 63 Subpart ZZZZ (RICE NESHAPs).~~

The propane IC engine is subject to the requirements of 40 CFR 63 Subpart ZZZZ (RICE NESHAPs).

In the event of conflict between conditions and the referenced regulatory citations, the more stringent requirements shall govern.

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

REFERENCES

BEP 2017 – Blythe Energy Inc. Petition of Amend Blythe Energy Project (99-AFC-08C), September 7, 2017.

CEC 2001 – California Energy Commission. Commission Decision of Blythe Energy Project (99-AFC-08). March 26, 2001.

CEC 2005 – California Energy Commission, Order Approving a Petition to Modify Air Quality Conditions (99-AFC-08C). June 24, 2005.

CEC 2015a – California Energy Commission. Letter Approving Requested Modification to Add a Turndown Upgrade Package to the Two Existing Gas Turbines at Blythe Energy Center (99-AFC-8C). January 7, 2015.

CEC 2015b – California Energy Commission. Order Approving a Petition to Reduce Allowable Annual Nox, CO, and PM10 Emissions at Blythe Energy Center (99-AFC-8C). July 16, 2015.

CEC 2016 – California Energy Commission. Order Approving Petition to Reduce PM10 and SOx Emissions at Blythe Energy Center (99-AFC-8C). June 17, 2016.

MDAQMD 2017 – Mojave Desert Air Quality Management District. Preliminary Determination on Title V Federal Operating Permit Significant Modification. September 28, 2017.

APPENDIX A

BLYTHE ENEGY PROJECT - AIR QUALITY CONDITIONS OF CERTIFICATION

The following Conditions of Certification apply to combustion turbine generator power block (CT1) (District Permit Number: B007953) and combustion turbine generator power block (CT2) (District Permit Number: B007954)

AQ-T1 Operation of the turbines shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

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

AQ-T2 The turbines shall be exclusively fueled with pipeline quality natural gas with a sulfur content not exceeding 0.5 grains per 100 dscf on a twenty-four hour basis and not exceeding 0.25 grains per 100 dscf on a rolling twelve month average basis. The turbines shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

Verification: The project owner shall incorporate into the Quarterly Operations Report either a monthly laboratory analysis showing the fuel sulfur content, a monthly fuel sulfur content report from the fuel supplier(s), or the results from a custom fuel monitoring schedule approved by U.S. EPA for compliance with the fuel monitoring provisions of 40 CFR 60 Subpart GG.

AQ-T3 The turbines are subject to the federal NSPS codified at 40 CFR Part 60, Subparts A (General Provisions) and GG (Standards of Performance for Stationary Gas Turbines). The turbines are also subject to the Prevention of Significant Deterioration (40 CFR 51.166) and Federal Acid Rain (Title IV) programs. Compliance with all applicable provisions of these regulations is required.

Verification: At least ninety (90) days prior to the first firing of fuel in either turbine, the project owner shall provide the District, the ARB and the CPM copies of the federal PSD and Acid Rain permits.

AQ-T4 Emissions from the turbines (including the associated duct burners) shall not exceed the following emission limits at any firing rate, except for CO, NO_x and VOC during periods of startup, shutdown and malfunction:

a. Hourly rate, computed every 15 minutes, verified by CEMS and annual compliance tests:

i. NOx as NO_2 — the most stringent of 19.80 lb/hr or 2.5 ppmvd corrected to 15% O_2 and averaged over one hour~~)~~.

ii. NOx as NO_2 — effective May 7, 2016, 2.0 ppmvd corrected to 15% O_2 and averaged over a rolling 12 month period.

iii. CO — the most stringent of 17.5 lb/hr or 4.0 ppmvd corrected to 15% O_2 and averaged over 3 hours.

iv. CO – 10 lb/hr averaged over a rolling 12-month period

b. Hourly rates, verified by annual compliance tests or other compliance methods in the case of SOx:

i. VOC as CH_4 — 2.9 lb/hr (based on 1 ppmvd corrected to 15% O_2).

ii. SOx as SO_2 — 2.7 lb/hr (based on 0.5 grains/100 dscf fuel sulfur).

iii. PM10 — 6.2 lb/hr.

Verification: The project owner shall submit the following in each Quarterly Operations Report: All continuous emissions data reduced and reported in accordance with the District approved CEMS protocol; a list of maximum hourly, maximum daily, monthly, total quarterly, total calendar year, and rolling 12-month emissions of NO_x, CO, PM10, VOC and SO_x (including calculation protocol); total monthly and rolling 12-month fuel use in the gas turbines and duct burners; average NO_2 concentration and average CO mass emission rate, for all operating periods except during startup, shutdown and malfunction, for each gas turbine and associated duct burner, calculated on a rolling 12-month basis; a log of all excess emissions, including the information regarding malfunctions/breakdowns required by District Rule 430; operating parameters of emission control equipment, including but not limited to ammonia injection rate, NO_x emission rate and ammonia slip; any maintenance to any air pollutant control system (recorded on an as-performed basis); and any permanent changes made in the plant process or production that could affect air pollutant emissions, and when the changes were made.

AQ-T5 Emissions of CO and NO_x from the turbines shall only exceed the limits contained in AQ-T4 during startup and shutdown periods as follows:

a. Startup is defined as the period beginning with ignition and lasting until either the equipment complies with all condition **AQ-T4** operating permit limits for two consecutive 15-minute averaging periods or four hours after ignition, whichever occurs first. Shutdown is defined as the period beginning with the lowering of equipment from base load and lasting until fuel flow is completely off and combustion has ceased.

b. The emissions from each startup and shutdown event shall not exceed the following, verified by CEMS:

i. NOx — 376 lb.

ii. CO — 3600 lb.

c. Effective May 7, 2016, the CO emissions from all startup and shutdown events at both power blocks, averaged over a rolling 12-month period, shall not exceed 750 lb/event, verified by CEMS.

Verification: The emission limits defined in this condition apply to one combined startup/shutdown event (one cycle). The project owner shall include a detailed record of each startup and shutdown event in the Quarterly Operations Report. Each record shall include, but not be limited to: duration; fuel consumption; total emissions of NOx and CO; average CO emissions from all startups and shutdowns of the gas turbines on a per event basis calculated on a rolling 12-month basis; and the date and time of the beginning and end of each startup and shutdown event. Additionally, the project owner shall report the total plant operation time (hours), number of startups, hours in startup and shutdown, and average plant operation schedule (hours per day, days per week, weeks per year).

AQ-T6 Aggregate emissions from the turbines, including the duct burner, shall not exceed the following emission limits, based on a calendar day summary:

a. NOx — 5762 lb/day, verified by CEMS.

b. CO — 8004 lb/day, verified by CEMS.

c. VOC as CH4 — 239 lb/day, verified by compliance tests and hours of operation in steady-state, pre-mix mode.

d. SOx as SO_2 — 130 lb/day, verified by fuel sulfur content and fuel use data.

e. PM10 — 298.5 lb/day, verified by compliance tests and hours of operation.

Verification: The project owner shall submit the following in each Quarterly Operations Report: All continuous emissions data reduced and reported in accordance with the District approved CEMS protocol; a list of maximum hourly, maximum daily, total quarterly, and total calendar year emissions of NO_x, CO, PM_{10}, VOC and SO_x (including calculation protocol); a log of all excess emissions, including the information regarding malfunctions/breakdowns required by District Rule 430; operating parameters of emission control equipment, including but not limited to ammonia injection rate, NO_x emission rate and ammonia slip; any maintenance to any air pollutant control system (recorded on an as-performed basis); and any permanent changes made in the plant process or production that could affect air pollutant emissions, and when the changes were made.

AQ-T7 Emissions from all units at this facility, including the cooling towers, shall not exceed the following emission limits, based on a rolling 12 month summary:

a. NOx —97 tons/year, verified by CEMS.

b. CO —175 tons/year, verified by CEMS.

c. VOC as CH_4 — 24 tons/year, verified by compliance tests and hours of operation in steady-state, pre-mix mode.

d. SOx as SO_2 — 12 tons/year, verified by fuel sulfur content and fuel use data.

e. PM10 —56.9 tons/year, verified by compliance tests and hours of operation.

These limits shall apply to all emissions from all units at this facility, and shall include emissions during all modes of operation, including startup, shutdown and malfunction.

Verification: The project owner shall submit the following in each Quarterly Operations Report: All continuous emissions data reduced and reported in accordance with the District approved CEMS protocol; a list of maximum hourly, maximum daily, monthly, total quarterly, total calendar year, and rolling 12-month emissions of NO_x, CO, PM10, VOC and SO_x (including calculation protocol); total monthly and rolling 12-month fuel use in the gas turbines and duct burners; average NO_2 concentration and average CO mass emission rate for all operating periods except during startup, shutdown and malfunction for each gas turbine and associated duct burner, calculated on a rolling 12-month basis; a log of all excess emissions, including the information regarding malfunctions/breakdowns required by District Rule 430; operating parameters of emission control equipment, including but not limited to ammonia injection rate, NO_x emission rate and ammonia slip; any maintenance to any air pollutant control system (recorded on an as-performed basis); and any permanent changes made in the plant process or production that could affect air pollutant emissions, and when the changes were made.

AQ-T8 Particulate emissions from this equipment shall not exceed opacity equal to or greater than twenty percent (20%) for a period aggregating more than three (3) minutes in any one (1) hour, excluding uncombined water vapor.

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

AQ-T9 The turbines shall exhaust through a stack at a minimum height of 130 feet.

Verification: Prior to the first firing of natural gas in either turbine the owner/operator shall provide as built drawings of the stack or other suitable proof of the minimum stack height to the District and the Energy Commission CPM.

AQ-T10 The project owner shall not operate the turbines after the initial commissioning period without the selective catalytic NOx reduction system with valid District permit, as well as the oxidation catalyst with valid District permit installed and fully functional.

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

AQ-T11 The project owner shall provide stack sampling ports and platforms necessary to perform source tests required to verify compliance with District rules, regulations and permit conditions. The location of these ports and platforms shall be subject to District approval.

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

AQ-T12 Emissions of NOx, CO, oxygen and ammonia slip shall be monitored using a Continuous Emissions Monitoring System (CEMS). Each CEMS shall be operational whenever the associated combustion turbine generator is in operation, including during periods of startup, shutdown and malfunction. Turbine fuel consumption shall be monitored using a continuous monitoring system. Stack gas flow rate shall be monitored using either a Continuous Emission Rate Monitoring System (CERMS) meeting the requirements of 40 CFR Part 75 Appendix A or a stack flow rate calculation method. The operator shall install, calibrate, maintain, and operate these monitoring systems according to a District approved monitoring plan and MDAQMD Rule 218, and they shall be installed prior to initial equipment startup. Six (6) months prior to installation the operator shall submit a monitoring plan for District review and approval.

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

AQ-T13 The project owner shall conduct all required compliance/certification tests in accordance with a District-approved test plan.

Verification: Thirty (30) days prior to the compliance/certification tests the operator shall provide a written test plan for District review and approval. Written notice of the compliance/certification test shall be provided to the District ten (10) days prior to the tests so that an observer may be present. A written report with the results of such compliance/certification tests shall be submitted to the District within forty-five (45) days after testing.

AQ-T14 The project owner shall perform the following annual compliance tests in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District no later than six weeks prior to the expiration date of this permit. The following compliance tests are required:

a. NOx as NO_2 in ppmvd at 15% O_2 and lb/hr (measured per U.S. EPA Reference Methods 19, 20, or 7E). If testing is performed at 90%-100% of rated capacity, then the annual calibration RATA associated with the NOx CEMS in use on these units may be used in lieu of the required annual U.S. EPA Reference Method 20, as long as all of the requirements of prior test notification, proper test result submittal, etc., are followed.

b. VOC as CH_4 in ppmvd at 15% O_2 and lb/hr (measured per U.S. EPA Reference Methods 25A and 18).

c. SOx as SO_2 in ppmvd at 15% O_2 and lb/hr.

d. CO in ppmvd at 15% O_2 and lb/hr (measured per U.S. EPA Reference Method 10).

e. PM10 in mg/m3 at 15% O_2 and lb/hr (measured per U.S. EPA Reference Methods 5 and 202 or CARB Method 5).

f. Flue gas flow rate in dscfm.

g. Opacity (measured per U.S. EPA reference Method 9).

h. Ammonia slip in ppmvd at 15% O_2.

Verification: The annual source test report shall be submitted to the District and CPM no later than six (6) weeks prior to the expiration date of the District permit.

AQ-T15 The project owner shall, at least as often as once every five years (commencing with the initial compliance test), include the following supplemental source tests in the annual compliance testing:

a. Characterization of cold startup VOC emissions;

b. Characterization of warm startup VOC emissions;

c. Characterization of hot startup VOC emissions; and

c. Characterization of shutdown VOC emissions.

Verification: Each annual source test report shall either include the results of these tests for the current year or document the date and results of the last such tests.

AQ-T16 Continuous monitoring systems shall meet the following acceptability testing requirements from 40 CFR 60 Appendix B:

a. For NOx, Performance Specification 2.

b. For O_2, Performance Specification 3.

c. For CO, Performance Specification 4.

d. For stack gas flow rate, Performance Specification 6 (if CERMS is installed.)

e. For ammonia, a District approved procedure that is to be submitted by the project owner.

Verification: The project owner shall discuss compliance with these specifications in each Quarterly Operations Report.

AQ-T17 The project owner shall submit to the Mojave Desert Air Pollution Control District (District) Air Pollution Control Officer (APCO), the United States Environmental Protection Agency (U.S. EPA) Region IX and the California Energy Commission a Quarterly Operations Report for the preceding calendar quarter by January 30, April 30, July 30 and October 30 of each year this permit is in effect. Each January 30 submittal shall include a summary of the reported information for the previous year. This information shall be maintained on site for a minimum of five (5) years and shall be provided to District or Energy Commission personnel on request.

a. Operating parameters of emission control equipment, including but not limited to ammonia injection rate, NOx emission rate and ammonia slip.

b. Total plant operation time (hours), number of startups, hours in startup, and hours in shutdown period.

c. Date and time of the beginning and end of each startup and shutdown period.

d. Average plant operation schedule (hours per day, days per week, weeks per year).

e. All continuous emissions data reduced and reported in accordance with the District approved CEMS protocol.

f. Maximum hourly, maximum daily, total quarterly, and total calendar year emissions of NOx, CO, PM10, VOC and SOx (including calculation protocol).

g. Total monthly and rolling 12-month emissions of NOx, CO and PM10 from all permit units.

h. Total monthly and rolling 12-month fuel use in the gas turbines and duct burners.

i. Average NO_2 concentration and average CO mass emission rate, for all operating periods except during startup, shutdown and malfunction, for each gas turbine and associated duct burner, calculated on a rolling 12-month basis.

j. Average CO emissions from all startups and shutdowns of the gas turbines, on a per event basis, calculated on a rolling 12-month basis.

k. Fuel sulfur content (monthly laboratory analyses, monthly natural gas sulfur content reports from the natural gas supplier(s), or the results of a

custom fuel monitoring schedule approved by U.S. EPA for compliance with the fuel monitoring provisions of 40 CFR 60 Subpart GG).

l. A log of all excess emissions, including the information regarding malfunctions/breakdowns required by Rule 430.

m. Any permanent changes made in the plant process or production, which would affect air pollutant emissions, and indicate when changes were made.

n. Any maintenance to any air pollutant control system (recorded on an as-performed basis).

Verification: The project owner shall submit a Quarterly Operations Report for the preceding calendar quarter by January 30, April 30, July 30 and October 30 of each year. The January 30 report shall include an annual summary of the Quarterly Operations Reports for the preceding year. The reports shall be submitted to the Mojave Desert Air Pollution Control District (District), the United States Environmental Protection Agency (U.S. EPA) and the California Energy Commission Compliance Project Manager (CPM).

AQ-T18 Effective May 7, 2016, total fuel use in the two gas turbines and two duct burners (Permit #B007953 combustion turbine generator power block (CT1), Permit #B007954 combustion turbine generator power block (CT2), Permit #B007955 duct burner unit 1 and Permit #B007956 duct burner unit 2)shall not exceed 31,852,800 MMBtu in any rolling 12-month period.

Verification: The project owner shall submit the total monthly and rolling 12-month fuel use in the gas turbines and duct burners in each Quarterly Operations Report.

The following Conditions of Certification apply to duct burner unit 1 (District Permit Number: B007955) and duct burner unit 2 (District Permit Number: B007956)

AQ-DB1 Operation of the duct burners shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

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

AQ-DB2 The duct burners shall be exclusively fueled with natural gas and shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

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

AQ-DB3 The duct burners shall not be operated unless the combustion turbine generator with valid District permit B007953 (or B007954), selective catalytic

reduction system with valid District permit C007959 (or C007960), and oxidation catalyst C010832 (or C010833) are in operation.

Verification: A summary of fuel use and equipment operation for each duct burner shall be included in each Quarterly Operations Report.

AQ-DB4 Fuel use by duct burners shall be recorded and maintained on site for a minimum of five (5) years and shall be provided to District, ARB, Energy Commission or U.S. EPA personnel on request.

Verification: The above information shall be recorded and maintained on site for a minimum of five (5) years and shall be provided to District or Energy Commission personnel on request.

The following Conditions of Certification apply to the two individual selective catalytic NO_x reduction systems (SCR) (District Permit Numbers: C007959, C007960.)

AQ-SCR1 Operation of the SCR units shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

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

AQ-SCR2 The SCR Units shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

Verification: A summary of significant operation and maintenance events for each selective catalytic reduction system shall be included in the Quarterly Operations Reports.

AQ-SCR3 The SCR Units shall be operated concurrently with the combustion turbine generator with valid MDAQMD permit B007953 (or B007954).

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

AQ-SCR4 Ammonia shall be injected whenever the selective catalytic reduction system has reached or exceeded 550 degree Fahrenheit. Except during periods of startup and shutdown, ammonia slip shall not exceed 10 ppmvd (corrected to 15% O_2), averaged over three hours.

Verification: The project owner shall maintain a log of the SCR temperatures and the commencement of ammonia injection times. This information shall be recorded and maintained on site for a minimum of five (5) years and shall be provided to District and Energy Commission personnel on request.

AQ-SCR5 Ammonia injection by the SCR units in pounds per hour shall be recorded and maintained on site for a minimum of five (5) years and shall be provided to District, ARB, Energy Commission or U.S. EPA personnel on request.

Verification: The above information shall be recorded and maintained on site for a minimum of five (5) years and shall be provided to District and Energy Commission personnel on request.

The following Conditions of Certification apply to the two oxidation catalyst (OC) units (District Permit Numbers: C010832, C010833.)

AQ-OC1 Operation of the OC units shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

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

AQ-OC2 The OC Units shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

Verification: A summary of significant operation and maintenance events for each oxidation system unit shall be included in the Quarterly Operations Reports.

AQ-OC3 The OC Units shall be operated concurrently with the combustion turbine generator with valid MDAQMD permit B007953 (or B007954).

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

The following Conditions of Certification apply to main cooling tower (District Permit Number: B007957) and chiller cooling tower (District Permit Number: B007958)

AQ-CT1 Operation of the cooling towers shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

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

AQ-CT2 The cooling towers shall be operated and maintained in strict accord with the recommendations of their manufacturer or supplier and/or sound engineering principles.

Verification: A summary of significant operation and maintenance events for each cooling tower shall be included in the Quarterly Operations Reports.

AQ-CT3 The drift rate shall not exceed 0.0006 percent with a maximum circulation rate of 146,000 gallons per minute (gpm) for the Main Cooling Tower and

22,000 gpm for the Chiller Cooling Tower. The maximum hourly PM10 emission rate shall not exceed 0.546 pounds per hour from both cooling towers, as calculated per the written District approved protocol.

Verification: Compliance documentation in accordance with the written District approved protocol shall be submitted to the District and the CPM.

AQ-CT4 Whenever the power plant is in operation, the operator shall perform tests of the blow-down water quality once in every seven day period at a minimum; to clarify, if at any time during that same seven day period the power plant has run, then the owner operator shall perform blow-down water quality tests. The operator shall maintain a log that contains the date and result of each blow-down water quality test, and the resulting mass emission rate. This log shall be maintained on site for a minimum of five (5) years and shall be provided to District, ARB, Energy Commission or U.S. EPA personnel on request.

Verification: A summary of the results of the weekly blow-down water quality tests and the results of the mass emission rate calculations shall be submitted in the Quarterly Operations Report.

AQ-CT5 The operator shall conduct all required cooling tower water quality tests in accordance with a District-approved test and emissions calculation protocol. Thirty (30) days prior to the first such test the operator shall provide a written test and emissions calculation protocol for District review and approval.

Verification: Thirty (30) days prior to the first such test the operator shall provide a written test and emissions calculation protocol for District and CPM review.

AQ-CT6 A maintenance procedure shall be established that states how often and what procedures will be used to ensure the integrity of the drift eliminators. This procedure shall be submitted to the District for approval at least thirty (30) days prior to construction and shall be kept on-site and available to District personnel on request.

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

The following Conditions of Certification apply to the non-certified diesel IC engine, emergency fire pump (District Permit Number: E007961), propane IC engine, emergency generator (District Permit Number: E009492)

AQ-IC1 The IC engines shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, the IC engines shall also be operated in accordance with all data and specifications submitted with the application for this permit.

Verification: A summary of significant operation and maintenance events for the IC engines shall be included in the Quarterly Operations Reports.

AQ-IC2 The diesel IC engines shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15 ppm) on a weight per weight basis per CARB Diesel or equivalent requirements. The propane IC engine shall only be fired on propane (LPG).

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

AQ-IC3 A non-resettable hour meter with a minimum display capacity of 9,999 hours shall be installed and maintained on the IC engines to indicate elapsed engine operating time.

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

AQ-IC4 The diesel IC engines shall be limited to use for emergency power, defined as in response to a fire or due to low fire water pressure. In addition, the diesel IC engine (permit #E007961) shall be operated no more than 20 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 20 hour per year limit.

The propane IC engine shall be limited to use for emergency power, defined as in response to a fire or when commercially available power has been interrupted. In addition, the propane IC engine shall be operated no more than 100 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 100 hour per year limit.

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

AQ-IC5 The requirements of section 93115.6 and 93116 of Airborne Toxic Control Measure for Stationary Compression Ignition Engines (ATCM) (Effective October 18, 2007), the hour limits indicated in **AQ-IC4**, do not apply to in-use emergency fire pump assemblies that are driven directly by stationary diesel-fueled CI engines and only operated the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25 "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 2002 edition, which is incorporated herein by reference.

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

AQ-IC6 The project owner shall maintain an operations log for the IC engines current and onsite, either at the engine location or at an on-site location, for a minimum of five (5) years, and provide to District, ARB, Energy Commission or U.S. EPA personnel upon request. The log shall include, at a minimum, the information specified below:

a. Date of each use and duration of each use (in hours), using the engines hour meter;

b. Reason for use (testing & maintenance, emergency, required emission testing);

c. Monthly and calendar year operation in terms of fuel consumption (in gallons) and total hours;

d. Monthly and rolling 12-month total CO, NOx and PM10 emissions, calculated based on monthly fuel use and District-approved emission factors; and

e. For diesel IC engines, fuel sulfur concentration (the project owner may use the supplier's certification of sulfur content if it is maintained as part of this log).

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

AQ-IC7 The project owner shall conduct inspections in accord with the following schedule. All inspections must occur at least annually regardless of operating hours.

a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or use an oil change analysis program to extend oil change frequencies per the requirements in 40 CFR 63.6625(i);

b. For diesel IC engines, inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. For propane IC engine, inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and

c. inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

AQ-IC8 The project owner shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.

AQ-IC9 The diesel IC engine (permit #E007961) is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines Title 17 CCR 93115 and 40 CFR 63 Subpart ZZZZ (RICE NESHAPs).

The propane IC engine is subject to the requirements of 40 CFR 63 Subpart ZZZZ (RICE NESHAPs).

In the event of conflict between conditions and the referenced regulatory citations, the more stringent requirements shall govern.

Verification: The above information shall be maintained on-site for a minimum of five (5) years and shall be provided to District and/or Energy Commission personnel on request.