CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
WWW.ENERGY.CA.GOV

DOCKET
05-AFC-2C
DATE APR 04 2011
RECD. APR 04 2011

DATE: April 4, 2011

TO: Interested Parties

FROM: Christina Snow, Compliance Office

SUBJECT: Walnut Creek Energy Park (05-AFC-2C) Staff Analysis of Proposed Modification

On March 8, 2011, the Walnut Creek Energy filed a petition with the California Energy Commission requesting to modify the Air Quality Conditions of Certification. A revised Petition to Modify was submitted on April 1, 2011 to ensure consistency with the South Coast Air Quality Management District's Revised Determination of Compliance and Draft Permit to Construct and Operate. The 500-megawatt project was certified by the California Energy Commission (Energy Commission) on February 27, 2008 and has not yet been constructed. The facility will be located at 911 Bixby Drive in the City of Industry, Los Angeles County.

Energy Commission staff reviewed the petition and assessed the impacts of this proposal on environmental quality, public health and safety, and proposes the modifications to the Air Quality Conditions of Certification as noted in the attached analysis. It is staff's opinion that, with the implementation of the revised air quality condition, the project will remain in compliance with applicable laws, ordinances, regulations, and standards and that the proposed modifications will not result in a significant adverse direct or cumulative impact to the environment (Title 20, California Code of Regulations, Section 1769).

The amendment petition and staff's analysis have been posted on the Energy Commission's webpage at:

http://www.energy.ca.gov/sitingcases/walnutcreek/compliance/index.html

The Energy Commission's Order (if approved) will also be posted on the webpage. Energy Commission staff intends to recommend approval of the petition at the May 4, 2011, Business Meeting of the Energy Commission. If you have comments on this proposed modification, please submit them to me at the address below prior to 9 AM on May 4, 2011.

Christina Snow, Compliance Unit
California Energy Commission
1516 9th Street, MS-2000
Sacramento, CA 95814

Comments and questions may be submitted by fax to (916) 654-3882, or by e-mail to csnow@energy.state.ca.us.

For further information on how to participate in this proceeding, please contact the Energy Commission Public Adviser's Office, at (916) 654-4489, or toll free in California at (800) 822-6228, or by e-mail at publicadviser@energy.state.ca.us. News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by e-mail at mediaoffice@energy.state.ca.us.

Enclosure: Staff Analysis

WALNUT CREEK ENERGY PARK (05-AFC-2C)

Request to Amend Selected Air Quality Conditions of Certification

Tao Jiang, Ph.D., P.E. and Wenjun Qian, Ph.D.

INTRODUCTION

On March 8th, 2011, the Walnut Creek Energy, LLC (WCE) filed a petition with the California Energy Commission (Energy Commission) requesting to amend the Conditions of Certification (COC) for the Walnut Creek Energy Park (WCE 2011). This amendment involves several minor permit changes to the Energy Commission's Final Decision made on February 27th, 2008 (CEC2008). All changes have been approved by the South Coast Air Quality Management District (SCAQMD) in a revised Determination of Compliance (DOC) issued on March 11th, 2011.

BACKGROUND

This peaking power plant was certified by the Energy Commission on February 27th, 2008, but has not yet begun construction. The facility as approved is a nominal 500 megawatt (MW) natural gas-fired peaking power plant to be located in the City of Industry in Los Angeles County. The current amendment requests minor modifications to several Air Quality Conditions of Certification, including the air emission offsets, frequency of startup/shutdowns and CO emission limit. More specifically, the changes to the conditions are:

- **AQ-SC7** and **AQ-19**: Recognize the emission reduction credit exemption under SCAQMD Rule 1304(a)(2) as a result of decommissioning Huntington Beach (HB) Units 3 and 4, and stipulate offset requirements for non-exempt emissions.
- **AQ-1** and **AQ-6**: Change monthly emission limits and fuel usage due to the new fuel heating value used in revised FDOC.
- **AQ-3**: Increase the number of startups/shutdowns from 350 to 480 per year.
- **AQ-4**: Decrease the carbon monoxide (CO) emission limit from 6 parts per million (ppm) to 4 ppm at 15 percent oxygen, to meet new best available control technology (BACT) requirements.
- **AQ-16**: Increase the NOx RECLAIM Trading Credits (RTCs) to reflect an increase in the potential number of startups/shutdowns, elect to be in SOx RECLAIM program, and submit SOx RTCs.

The requested amendment does not involve significant modifications to any plant equipment, facility design or operating parameters. The proposed changes are consistent with all applicable laws, ordinances, regulations and standards (LORS). Resulting changes in emissions are minor, in some instances require lower emissions, and in all instances are fully offset in accordance with air district rules implementing the federal Clean Air Act. Accordingly, the proposed changes, with the proposed offset

mitigation, do not result in any significant adverse air quality impacts. If approved by the Energy Commission, the proposed changes include compliance provisions that would ensure that the project complies with LORS (i.e., is consistent with the revised district DOC) and is fully mitigated.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS - COMPLIANCE

The project's proposed amendment is subject to all the LORS described in the Final Staff Assessment (FSA) (CEC 2007).

EXSISTING AMBIENT AIR QUALITY

The project is located in the City of Industry and is under the jurisdiction of the SCAQMD. The federal and state attainment status of criteria pollutants in the South Coast Air Basin are summarized in **Air Quality Table 1.**

Air Quality Table 1
Federal and State Attainment Status for the South Coast Air Basin

Pollutant	Attainment Status	
	Federal	**State**
Ozone (O_3)	Nonattainment	Nonattainment
Carbon monoxide (CO)	Attainment [a]	Attainment
Nitrogen dioxide (NO_2)	Unclassified/Attainment [b]	Attainment
Sulfur dioxide (SO_2)	Attainment	Attainment
Particulate matter less than 10 microns (PM10)	Nonattainment	Nonattainment
Particulate matter less than 2.5 microns (PM2.5)	Nonattainment	Nonattainment

Source: U.S. EPA 2011a. ARB 2011a.
Notes:
a. The South Coast Air Basin was designated as a carbon monoxide attainment area on May 11, 2007.
b. A new federal 1-hour NO2 standard became effective April 12, 2010. Attainment status is expected to be determined by January 2012.

Since the adoption of the Decision in 2008, additional ambient air quality data have become available. **Air Quality Table 2** reflects the most recent data for the last five years. Values above the applicable limiting standards are shown in bold in the table.

Air Quality Table 2
Maximum South Coast Ambient Air Quality Concentrations (ppm or µg/m^3)

Pollutant (Station) [a]	Averaging Period	Units	2005	2006	2007	2008	2009	Limiting AAQS [b]
Ozone (La Habra)	1 hour	ppm	**0.094**	**0.15**	**0.152**	**0.104**	**0.115**	0.09
Ozone (La Habra)	8 hours	ppm	**0.075**	**0.114**	**0.107**	**0.084**	**0.082**	0.07
PM10 (LA-North Main St)	24 hours	µg/m^3	**70**	**59**	**78**	**66**	**72**	50
PM10 (LA-North Main St)	Annual	µg/m^3	**29.2**	**30.3**	**33.3**	**30.9**	**32.5**	20
PM2.5 (LA-North Main St)	24 hours	µg/m^3	**53.3**	**38.9**	**51.2**	**40.4**	34	35
PM2.5 (LA-North Main St)	Annual	µg/m^3	**18.1**	**15.6**	**16.8**	**16**	**14.3**	12
CO (La Habra)	1 hour	ppm	7	6	6	5	4	20
CO (La Habra)	8 hours	ppm	3.1	3	2.9	2.9	2.3	9
NO_2 (La Habra)	1 hour state	ppm	0.09	0.09	0.08	0.08	0.1	0.18
NO_2 (La Habra)	1 hour federal	ppm	0.073	0.077	0.07	0.073	0.069	0.1
NO_2 (La Habra)	Annual	ppm	0.0249	0.0224	0.0219	0.0206	0.0206	0.03
SO_2 (LA-North Main St)	1 hour	ppm	0.07	0.03	0.01	0.01	0.01	0.25
SO_2 (LA-North Main St)	3 hour	ppm	0.016	0.021	0.006	0.004	-	0.5
SO_2 (LA-North Main St)	24 hours	ppm	0.01	0.006	0.003	0.002	0.002	0.04
SO_2 (LA-North Main St)	Annual	ppm	0.002	0.0019	0.0009	0.0003	-	0.03

Source: ARB 2011b, U.S.EPA 2011b.
Notes:
[a] No single station in the area monitors all pollutants. The representative station nearest the project site is used in each case.
[b] The limiting AAQS is the most stringent of the CAAQS or NAAQS for that pollutant and averaging period.

Staff recommends the background ambient air concentrations in **Air Quality Table 3** for use in the impacts analysis. The recommended background concentrations are based on the maximum criteria pollutant concentrations from the past three years (2007-2009) of available data collected at the most representative monitoring stations surrounding the project site.

Air Quality Table 3
Staff Recommended Background Concentrations (µg/m^3)

Pollutant	Averaging Time	Background	Limiting Standard	Percent of Standard
PM10	24 hour	**78**	50	**156**
	Annual	**33.3**	20	**167**
PM2.5	24 hour	**51.2**	35	**146**
	Annual	**16.8**	12	**140**
CO	1 hour	6,900	23,000	30
	8 hour	3,335	10,000	33
NO_2	1 hour State	188.3	339	56
	1 hour Federal	132.9	188	71
	Annual	41.6	57	73
SO_2	1 hour	26.2	655	4
	3 hour	15.6	1300	1
	24 hour	7.9	105	8
	Annual	2.4	80	3

Source: ARB 2011b, U.S.EPA 2011b and Energy Commission Staff Analysis.

ANALYSIS OF AMENDMENT REQUESTS

Non-RECLAIM Pollutants Offset Exemption under SCAQMD Rule 1304 and Offset Requirements for Non-exempt Emissions

To satisfy the offset requirements for non-RECLAIM pollutants (VOC and PM10/PM2.5), WCE proposes to use a combination of certified ERCs (10.09% of the total ERCs required) and an ERC exemption (for 89.91% of total ERCs required) under SCAQMD Rule 1304(a)(2). WCE qualifies for the ERC exemption by replacing older, existing utility boilers (HB Units 3 and 4) with the newer, more efficient and clean natural-gas-fired gas-turbine based WCEP project. Note that 1304(a)(2) exempts WCE from having to supply the ERCs, however, it requires South Coast to supply the ERCs for the replacement project, ensuring that WCEP's emissions are fully offset.

The previous Energy Commission's Decision allowed the SO_2 and PM10/PM2.5 offset liability to be satisfied by either a combination of ERCs and Priority Reserve Credits (PRCs), or 100 percent PRCs. The amendment to SCAQMD Rule 1309.1 on August 3, 2007 allowed the previously permitted power plants to obtain PRCs from SCAQMD's Priority Reserve Account (PRA). However, this option was invalidated by court orders issued in July and November 2008. Therefore PRCs are no longer available and WCE is required to provide emission offsets in the form of ERCs only. To achieve this, WCE proposes to use a new emission offsets strategy including purchasing some certified ERCs and the ERC exemption. As such, WCE would purchase two existing utility steam boilers (HB Units 3 and 4) presently owned and operated by AES Huntington Beach,

LLC in the City of Huntington Beach. WCE will remove these two boiler units from operation, thereby exempting most of the project's VOC and PM10/PM2.5 emissions under District Rule 1304(a)(2) offset exemption.

Under District Rule 1304(a)(2), the offset exemption is only applied to the retirement of older electric utility steam boilers without a net increase in basin generation capacity. The total electric generating capacity of the existing HB Units 3 and 4 is 450 MW, while WCEP's maximum generating capacity is 500.5 MW. Therefore, the emissions associated with the net increase in the electrical generating capacity (50.5 MW) from the new equipment need to be offset through WCE providing ERCs from emission reductions which have occurred at other facilities within the air basin. The applicant has demonstrated that they have secured 226 lbs/day of VOC ERCs. This is more than the 21 lbs/day needed as shown in **Air Quality Table 4**. The owner is still in the process of securing the non-exempted 10.09 percent of project's PM10/PM2.5 ERCs (52 lbs/day). These ERCs will be provided by the time the owner submits the application to SCAQMD for the Permit to Construct (PTC). The timing of these ERCs is acceptable to staff because SCAQMD will allow WCE to provide them at that time and due to the fact that this is only about 10 percent of the needed PM10/PM2.5 ERCs. The offset obligation of WCEP is shown in **Air Quality Table 4.** The emission offset calculations assume the proposed 480 startups/shutdowns per year.

Staff reviewed the mitigation strategy (offset exemption under Rule 1304(a)(2) and ERCs associated with the increase 50MW capacity) and determined that they are adequate to mitigate the project impacts. SCAQMD will draw upon the District Account (Rule 1315, adopted on February 4th, 2011) of ERCs equivalent to the full amount of exempted offsets for the Project, including applicable emission offsets ratios.

Air Quality Table 4
Emission Offsets for Non-RECLAIM Pollutants (per turbine basis, lbs/day)

	VOC	PM10/PM2.5
Total Emissions to be Offset	173.82	432.00
ERC Offset Ratio	1.2	1.2
Total ERCs Required	208	519
Offset Exemption under Rule 1304 (a)(2)	187	467
ERCs Shortfall at 10.09 percent[a]	21	52
Secured ERCs	226	0
Remaining offsets needed	0	52

Source: WCE2011, table 2-1
Notes: [a] The shortfall percentage is calculated as 50.5MW/500.5MW=10.09 percent.

Increase in Frequency of Startups and Shutdowns

WCE proposes to increase the maximum number of startups/shutdowns from 350 to 480 per year and the number of daily shutdowns from 1 to 2. This change would allow the project to meet the commitments of their Power Purchase Agreement (PPA).

The number of startups and shutdowns will not change the short-term calculated maximum 1-hour, 3-hour and 8-hour impacts, except for the new federal 1-hour NO_2 standard. This is because the modeling assumes one startup/shutdown occurs during these short modeled periods in order to determine the maximum impacts. The modeled maximum impact is thus unchanged. Therefore staff continues to use the previous modeled project impacts from the Final Staff Analysis (CEC2007) but updates the background concentrations to the more recent data in **Air Quality Table 3** in order to determine the total impacts.

The U.S. EPA implemented a new, 1-hour NO_2 standard, which became effective on April 12, 2010, after the date this project was approved by the Energy Commission. The federal EPA has indicated that this standard is applicable to projects requiring a Prevention of Significant Deterioration (PSD) permit. Although WCE does not require this federal permit because its emissions are below the PSD threshold, Staff considered whether the project would meet the new standard. The new standard is expressed as a 3-year average of the 98th percentile of the *daily maximum* 1-hour concentration (i.e., the 8th highest of daily highest 1-hour concentrations). To evaluate the impact of WCEP on air quality relative to this new standard, air dispersion modeling has been conducted for this amendment using 09292 AERMOD model. The 2007-2009 average of 98th percentile background NO_2 concentration was added to the modeled impact to evaluate the total impact.

In the original AFC (WCE 2005) and FSA (CEC2007), a hypothetical worst-case scenario assumed annual emissions based on 4,000 hours of base operation plus 838 hours of startup/shutdown, which is greater than the 4,000 hour permit limit. The 24-hour emissions assume 20 hours of base load with 4 hours in startup/shutdown for a total of 24 hours of daily operation. These operation scenarios are still valid and conservative assumptions under the proposed conditions. Therefore staff will continue to use the previous modeled project impacts for evaluation of 24-hour and annual impacts using the new operating data.

Cumulative Impacts and Mitigation

Staff considered the project in the context of the California Environmental Quality Act (CEQA). WCE's emissions of criteria pollutants are not, standing alone, of such magnitude as to have health consequences, and do not result in any significant direct environmental impact. However, in the context of all the sources of pollution in the air basin, WCE emissions have the potential to contribute to ozone and particulate matter levels in the basin, and are a significant cumulative impact requiring mitigation. Such mitigation is provided programmatically by the air districts rules, which require offsets (emission reductions at other facilities of equal or greater magnitude as those of WCE emissions) to fully mitigate such project emissions.

The predicted maximum concentrations of non-reactive pollutants during operation are summarized in **Air Quality Table 5**. This modeling analysis indicates, with the exception of PM10 and PM2.5 impacts, that the proposed project would neither create

new exceedances nor contribute to existing exceedances for any of the modeled air pollutants. Staff believes that particulate matter emissions from routine operation would cause a significant cumulative impact if left unmitigated because they will contribute to existing violations of PM10 and PM2.5 ambient air quality standards. Significant secondary impacts would also occur for PM10, PM2.5, and ozone because operational emissions of particulate matter precursors (including SOx) and ozone precursors (NOx and VOC) would contribute to existing violations of these standards. Therefore, staff continues to recommend the use of all mitigation measures identified in FSA (CEC 2007) and the Final Commission Decision (CEC2008). With such mitigation, the project's cumulative impacts to ozone and particulate levels will be fully mitigated, and less than significant.

The proposed amendment should not result in any increase in greenhouse gas (GHG) emissions from those of the project previously licensed. Moreover, WCE is a newer and more efficient mid-merit to peaking unit than those it will displace in the dispatch order; as a result, the project will result in greater system efficiency and lower GHG emissions than would otherwise occur were it not built. It is a flexible power plant that can be quickly dispatched to respond to fluctuating electricity supply from renewable generation (such as solar and wind units), buttressing system reliability as more such intermittent renewable generation is added to California's generation supply. As such, it is consistent with AB 32 goals, and consistent with the criteria of the Avenal precedent decision regarding GHG emissions and cumulative impacts. In other words, its effects on GHG emissions from the electrical generation system are beneficial, and there is no significant adverse cumulative effect from it.

Change of NOx and SOx RTCs

Increasing the frequency of startups/shutdowns will not increase the required offsets for VOC, PM, and SOx because offsets for these pollutants are based on monthly peak emissions, which have already been calculated in the original certification assuming 432 hours of base load operation with 40 startup/shutdowns for a total of 463 hours per month. This worst-case monthly operation scenario is more conservative than the currently requested operation conditions.

Since NOx RTCs were calculated on an annual basis of 350 startup/shutdowns in the original certification, the increase of startup/shutdowns will increase the RTCs required annually for NOx. As determined by SCAQMD's revised DOC, a minimum of 43,900 lbs/year of NOx RTCs are required for the first year of operation and 35,458 lbs/year NOx RTCs are required for the subsequent years.

Because HB units 3 and 4 are currently in the district's SOx RECLAIM program, the WCEP now elects to be in the SOx RECLAIM program. Based on a 4,000-hour/year baseload operation scenario, the annual SOx RTCs required by the district are 2280lbs/ year.

Air Quality Table 5
Maximum Operation Emission Impacts (□g/m^3)

Pollutant	Averaging Time	Modeled Impact (□g/m^3)	Background (□g/m^3)	Total Impact (□g/m^3)	Limiting Standard (□g/m^3)	Percent of Standard
PM10	24 hour	6.77	**78.0**	**84.8**	50	**170**
	Annual	0.573	**33.3**	**33.9**	20	**169**
PM2.5	24 hour	6.77	**51.2**	**58**	35	**166**
	Annual	0.573	**16.8**	**17.4**	12	**145**
CO	1 hour	117.44	6900	7017.4	23,000	31
	8 hour	40.29	3335	3375.3	10,000	34
NO_2	1 hour	63.02	188.3	251.4	339	74
	1 hour Federal	22.42	132.9	155.3	188	83
	Annual	0.825	41.6	42.4	57	74
SO_2	1 hour	2.71	26.2	28.9	655	4
	24 hour	0.856	7.9	8.7	105	8
	Annual	0.056	2.4	2.5	80	3

Source: WCE2011, CEC2007 and independent staff assessment.

Decrease of the CO Emission Limit

WCE proposes to change the CO emission limit from 6.0 ppm to 4.0 ppm in order to meet the new BACT requirement for simple-cycle, natural-gas-fired power plants in the South Coast air district. The proposed modification will result in a lower project impact than approved in the previous 2008 Energy Commission Decision. Staff welcomes this emission reduction and recommends the revision.

Change of Monthly Emission Limits and Fuel Usage

WCE proposes to change the monthly emission limits of PM10 from 2,778 lbs/month to 2,592 lbs/month and VOC from 1,106 lbs/month to 1,035 lbs/month. The monthly fuel usage limit is proposed to change from 393 mmscf to 367 mmscf. The changes are made due to the new fuel heating value used in revised FDOC. In the 2008 FDOC and Commission Decision, the heating value used is 1020 BTU/scf. In the Revised DOC, SCAQMD used a heating value of 1050 BTU/scf. The increase of heating value will lower the volumetric fuel usage as well as emissions, and therefore decrease the project's expected impact.

CONCLUSIONS AND RECOMMENDATIONS

The requested project changes would conform with applicable federal, State, and SCAQMD air quality LORS, and the amended project would not cause significant

adverse air quality impacts, provided that the following COCs are included. Staff recommends that the revised COCs be approved as shown below.

AMENDED AND PROPOSED CONDITIONS OF CERTIFICATION

Below is a list of those COCs that must be revised from those approved in the 2008 Energy Commission Final Decision (CEC2008). These changes are also consistent with revised SCAQMD FDOC. ~~Strikethrough~~ is used to indicate deleted language and **underline and bold** is used for new language.

Staff Air Quality Conditions of Certification

AQ-SC7 **To comply with offset requirements an affiliate of WCE, under common ownership of Edison Mission Energy (EME), has been created to purchase two electric utility steam boilers from AES Huntington Beach, LLC, and will permanently retire these units to qualify for a partial offset exemption on a net megawatt to net megawatt basis (450 MWs).** The project owner shall **also** provide emission reduction credits **(ERCs)** to offset turbine exhaust and emergency equipment **for** ~~NOx,~~ VOC, ~~SOx~~, PM10 and PM2.5 emissions **associated with the increased generating capacity of 50.5 MWs** in the form and amount required by the District. RECLAIM Trading Credits (RTCs) shall be provided for NOx **and SO_X** as is necessary to demonstrate compliance with Condition of Certification **AQ-16**.

The project shall be exempt under District Rule 1304(a)(2) from providing ERCs ~~Emission reduction credits (ERCs) or SCAQMD Priority Reserve Credits (PRCs) shall be provided for SOx (45 lb/day) and PM10 (463 b/day). Emission reduction credits only shall be provided for VOC (220 lb/day, includes an offset ratio of 1.2).~~ **for VOC, and PM10/PM2.5 for 89.91 percent of the full amount required by the District for these pollutants and shall provide ERCs at an offset ratio of 1.2:1.0 for the remaining 10.09 percent in accordance with the following:**

Pollutant (lb/day)	VOC	PM10/PM2.5
1. Total emissions to be offset	173.82	432.00
2. Emissions not exempt from offsetting under Rule 1304(a)(2) (10.09%)	17.54	43.59
3. ERCs required to offset non-exempt emissions at a ratio of 1.2 lb/day offsets to 1 lb/day non-exempt emissions	21	52

The project owner shall surrender the ERCs~~, if applicable,~~ for ~~SOx,~~ VOC and PM10/PM2.5 from among those that are listed in the table below or a modified list, as allowed by this condition. If additional ERCs are submitted, the project owner shall submit an updated table including the additional ERCs to the CPM. The project owner shall request CPM approval for any substitutions, modifications, or additions of credits listed.

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

The project owner shall request from the District **the verification to identify the ERCs used to offset the project emissions.** ~~a report of the NSR Ledger Account for the project~~ after the District has issued the Permit to Construct. ~~This report is to specifically identify the ERCs and PRCs used to offset the project emissions.~~

Certificate Number	Amount (lb/day)	Pollutant
AQ003679	8	VOC
AQ002683	1	VOC
Former AQ004209	117	VOC
Former AQ006303	100	VOC

Verification: At least 10 days prior to commencement of construction, t~~T~~he project owner shall ~~submit to the CPM the NSR Ledger Account,~~ **provide CPM by email and post to the U.S. mail a copy of the SCAQMD approved Permit to Construct to** show~~ing~~ that the project's offset requirements have been met, **by actual offset or exemption under Rule 1304(a)(2)**. ~~15 days prior to initiating construction for Priority Reserve Credits, and 30 days prior to turbine first fire for traditional ERCs~~. Prior to commencement of construction, the project owner shall obtain sufficient RTCs to satisfy the District's requirements for the first year of operation as prescribed in Condition of Certification **AQ-16**. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and commission docket. The CPM shall maintain an updated list of approved ERCs for the project.

AQ-SC8 Deleted.

District Conditions of Certification – Revised Determination of Compliance

AQ-1 The project owner shall limit the emissions from each gas fired combustion turbine train exhaust stacks as follows:

Contaminant	Emissions Limit
PM10	~~2,778~~**2,592** lbs in any one month
~~CO~~	~~6,532 lbs in any one month~~
~~SOx~~	~~281 lbs in any one month~~
VOC	~~1,106~~**1,035** lbs in any one month

For the purpose of this condition, the limit(s) shall be based on the emissions from a single exhaust stack. **During commissioning, the VOC emissions shall not exceed 1,043 lbs in any one month.**

The project owner shall calculate the emission limit(s) by using the monthly fuel use data and the following emission factors: PM10: ~~6.93~~**7.04** lb/mmscf andVOC: ~~2.00~~**2.73** lb/mmscf. ~~& SOx: 0.71 lb/mmscf~~.

~~The project owner shall calculate the emission limit(s) for CO during the commissioning period, using fuel consumption data and the following emission factors: 125.87 lb/mmscf.~~

~~The project owner shall calculate the emission limit(s) for CO after commissioning period and prior to the CO CEMS certification, using fuel consumption data and the following emission factors: 17.15 lb/mmscf. The emission rate shall be recalculated in accordance with Condition **AQ-10** if the approved CEMS certification test results in emission concentration higher that 6 ppmv.~~

~~The project owner shall calculate the emission limit(s) for CO after the CO CEMS certification, based on readings from the certified CEMS. In the event the CO CEMS is not operating or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated with the following emission factor: 17.15 lbs/mmscf.~~

~~During Commissioning, the CO emissions shall not exceed 7,441 lbs/month and the VOC emissions shall not exceed 1,114 lbs/month.~~

Verification: The project owner shall submit all emission calculations, fuel use, CEM records and a summary demonstrating compliance **with** ~~of~~ all emission limits stated in this Condition for approval to the CPM on a quarterly basis in the quarterly emissions report (**AQ-SC10**).

AQ-3 The 2.5 ppm NOx emission limit, 2.0 ppm VOC emission limit and the ~~6.0~~ **4.0** ppm CO emission limit shall not apply during turbine commissioning, start-up and shutdown. The commissioning period shall not exceed 134 operating hours per turbine from the initial start-up. Following commissioning, start-ups shall not exceed 60 minutes **for each startup** and the number of start-ups shall not exceed ~~350~~ **480** per year. Following commissioning, shutdowns shall not exceed 10 minutes **for each shutdown**. ~~and t~~**T**he number of ~~shutdowns~~ **startups** shall not exceed ~~one~~ **two** per day per turbine. Written records of commissioning, start-ups and shutdowns shall be kept and made available to District and submitted to the CPM for approval. The 123.46 lb/mmscf NOx emission limit(s) shall only apply during interim reporting period during initial turbine commissioning and the 10.29 lbs/mmscf shall apply only during the interim reporting period after the initial turbine commissioning period, to report RECLAIM emissions. The interim period shall not exceed 12 months from the initial start-up date.

Verification: The project owner shall provide the District and the CPM with the written notification of the initial start-up date no later than 60 days prior to the startup date. The project owner shall submit, commencing one month from the time of gas turbine first fire, a monthly commissioning status report throughout the duration of the commissioning phase that demonstrates compliance with this condition and the emission limits of Condition **AQ-13**. The monthly commissioning status report shall include criteria pollutant emission estimates for each commissioning activity and total commissioning emission estimates. The monthly commissioning status report shall be submitted to the CPM until the report includes the completion of the initial commissioning activities. The project owner shall provide start-up and shutdown occurrence and duration data as part as part of the Quarterly Operation Report **AQ-SC10**). The project owner shall make the site available for inspection of the commissioning and startup/shutdown records by representatives of the District, CARB and the Commission.

AQ-4 The 2.5 ppm NOx emissions limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis.

The ~~6.0~~ **4.0** ppm CO emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis.

The 2.0 ppm VOC emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis.

The 5.0 ppm NH3 emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis.

Verification: The project owner shall submit to the CPM for approval all emissions and emission calculations on a quarterly basis as part of the quarterly emissions report of Condition of Certification **AQ-SC10**.

AQ-6 The project owner shall limit the fuel usage from each turbine to no more than ~~393~~ **367** mmscf at 1,050 BTU/scf of pipeline quality natural gas in any one month. The operator shall install and maintain a fuel flow meter and recorder to accurately indicate and record the fuel usage being supplied to each turbine.

Verification: The project owner shall submit to the CPM for approval all fuel usage records on a quarterly basis as part of the quarterly emissions report of Condition of Certification **AQ-SC10**.

AQ-16 The project equipment shall not be operated unless the project owner demonstrates to the SCAQMD Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the project owner demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility hold sufficient RTCs in an amount equal to the annual emission increase. The project owner shall submit all such information to the CPM for approval. To comply with this condition, the project owner shall hold a minimum of ~~40,761~~ **~~44,823.28~~43,900** lbs/year of NOx RTCs **and ~~2,325.36~~2,280 lbs/year of SO_X RTCs** for the first year of operation and ~~32,319~~ **~~35,281.14~~35,458** lbs/year **of NO_X RTCs and 2,280~~.08~~ lbs/year of SO_X RTCs** thereafter.

Verification: The project owner shall submit all identified evidence demonstrating compliance to the CPM on an annual basis as part of the annual compliance report.

AQ-19 The project owner shall not start operation of any equipment until both boiler units 3 and 4 currently located at AES Huntington Beach Generating Station have been retired and permits for boilers 3 and 4 have been surrendered to the SCAQMD.

Verification: The project owner shall provide by email and post to the U.S. mail evidence demonstrating that they have surrendered the permits to operate for Huntington Beach boilers 3 and 4 prior to the first turbine fire. The project owner shall make the site available for inspection by representatives of the District, CARB, EPA and the Commission. In addition, the project owner shall make Huntington Beach boiler units 3 and 4 available for inspection to confirm shutdown of these boilers by representatives of the District, CARB, EPA and the Commission.

References

ARB 2011a (California Air Resources Board). Air Designation Maps available on ARB website. http://www.arb.ca.gov/desig/adm/adm.htm. Accessed 2011.

ARB 2011b (California Air Resources Board). California Ambient Air Quality Data Statistics available on ARB website. http://www.arb.ca.gov/adam/ welcome.html. Accessed 2011.

CEC 2007 - California Energy Commission, Final Staff Assessment of the Walnut Creek Energy Park Project (05-AFC-2). April 11, 2007.

CEC 2008 - California Energy Commission, Commission Final Decision of the Walnut Creek Energy Park Project (05-AFC-2). February 27, 2008.

U.S.EPA 2011a - United States Environmental Protection Agency. The Green Book Nonattainment Areas for Criteria Pollutants. http://www.epa.gov/oar/oaqps/greenbk/index.html. Accessed 2011.

U.S.EPA 2011b. - United States Environmental Protection Agency. AirData database ambient air quality data. http://www.epa.gov/aqspubl1/annual_summary.html. Accessed 2011.

WCE 2005 – Walnut Creek Energy, LLC. Walnut Creek Energy Park Application for Certification (05-AFC-2). November 23, 2005.

WCE 2011 – Walnut Creek Energy, LLC. Walnut Creek Energy Park Petition for Amendment (05-AFC-2). March 8, 2011.