CALIFORNIA ENERGY COMMISSION
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STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	
HUNTINGTON BEACH GENERATING STATION	**Docket No. 00-AFC-13C**
	Order No.12-1129-4
Edison Mission Huntington Beach, LLC	**ORDER APPROVING a Petition to Convert the Existing Units 3 and 4 to Synchronous Condensers**

On October 5, 2012, Edison Mission Huntington Beach LLC., the owner of the Huntington Beach Generating Station Project (HBGS) Units 3 and 4, submitted a petition requesting to convert the decommissioned Units 3 and 4 to synchronous condensers. The proposed modifications will allow Edison Mission Huntington Beach, LLC to convert Units 3 and 4 from electrical utility steam generators to synchronous condensers to provide voltage support to the grid.

STAFF RECOMMENDATION

Energy Commission staff reviewed the petition and assessed the impacts of this proposal on environmental quality, public health and safety, and proposes to eliminate air quality conditions of certification **AQ-1** through **AQ-11** and **AQ-C1** through **AQ-C5** since they will no longer be relevant. In addition, staff is recommending two new conditions, **AQ-SC1** and **AQ-SC2** to address potential equipment and fugitive emissions from the facility modification and operation of the HBGS Project as synchronous condensers. It is staff's opinion that, with the deletion of existing conditions and the addition of **AQ-SC1** and **AQ-SC2**, 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).

ENERGY COMMISSION FINDINGS

Based on staff's analysis, the Energy Commission concludes that the proposed changes will not result in any significant impact to public health and safety, or the environment. The Energy Commission finds that:

- The petition meets all the filing criteria of title 20, section 1769(a) of the California Code of Regulations concerning post-certification project modifications;
- The modification will not change the findings in the Energy Commission's Final Decision pursuant to title 20, section 1755;
- The project will remain in compliance with all applicable laws, ordinances, regulations, and standards;
- The Change will be beneficial to the public by providing voltage support for the Los Angeles Basin that the California Independent System Operator (CAISO) has determined is needed;
- There has been a substantial change in circumstances since the Energy Commission certification justifying the change and that the change is based on information that was not available to the parties prior to Energy Commission certification. Specifically the CAISO only recently approved the 2013 Local Capacity Technical Analysis, Addendum to the Final Report and Study Results identifying and approving the need for Huntington Beach Generating Station Units 3 and 4 to operate as synchronous condensers.

CONCLUSION AND ORDER

The California Energy Commission hereby adopts Staff's recommendations and approves the following changes to the Commission Decision for the Huntington Beach Generating Station Project. New language is shown as **bold and underlined**, and deleted language is shown in ~~strikeout~~.

CONDITIONS OF CERTIFICATION

~~AQ-C1 Prior to the commencement of project construction, the project owner shall prepare a construction Fugitive Dust Mitigation Plan that will specifically identify fugitive dust mitigation measures that will be employed for the construction of the HBSG Retool Project and related facilities.~~

~~a) The Construction Fugitive Dust Mitigation Plan shall specifically identify measures to limit fugitive dust emissions from construction of the project. Measures that shall be addressed include the following:~~

- ~~the identification of the employee parking area(s) and surface of the parking area(s);~~
- ~~the frequency of watering of unpaved roads and disturbed areas;~~
- ~~the application of chemical dust suppressants;~~
- ~~the stabilization of storage piles and disturbed areas;~~
- ~~the use of gravel in high traffic areas;~~
- ~~the use of paved access aprons;~~
- ~~the use of posted speed limit signs;~~
- ~~the use of wheel washing areas prior to large trucks leaving the project site; and~~

- the methods that will be used to clean mud and dirt tracked-out from the project site
- onto public roads.

b) The following measures should be addressed for the transportation of the any borrow fill materials to the HBGS Retool Project site and the transmission and natural gas line sites, if any, and the transportation of export soils and construction debris:

- the use of covers on the vehicles;
- the wetting of the material; and
- insuring appropriate freeboard of material in the vehicles.

Verification: At least 5 days prior to the start of construction, the project owner shall provide the CPM with a copy of the Construction Fugitive Dust Mitigation Plan for approval. Construction shall not commence until CPM approval of the Plan.

AQ-C2 The project owner shall use exclusively 15 ppm sulfur content fuel (such as ECD-1 or equivalent) in all diesel off-road construction equipment.

Verification : The project owner shall submit to the CPM, no later than 15 days after initiating construction, a written evaluation signed by a California registered professional engineer that demonstrates that all construction diesel engines comply with this requirement and if available copies of the EPA or CARB engine certifications.

AQ-C3 The project owner shall use EPA certified 1996 low NOx emission construction equipment or demonstrate that its equipment complies with the EPA 1996 diesel engine emission standards. The project owner shall ensure that all heavy earthmoving equipment including, but not limited to, bulldozers, backhoes, compactors, loaders, motor graders and trenchers, and cranes, dump trucks and other heavy duty construction related trucks, have been properly maintained and the engines tuned to the engine manufacturer's specifications.

Verification The project owner shall submit to the CPM, no later than 15 days after initiating construction, a written evaluation signed by a California registered professional engineer that demonstrates that all construction diesel engines comply with this requirement and if available copies of the EPA or CARB engine certifications.

AQ-C4 The project owner shall only use internal combustion powered generating equipment to provide electrical power for the Unit 3 and 4 construction activities during power outages.

Verification The project owner shall maintain an operating log on all fuel-fired internal combustion engines that are used to supply electricity for the construction of Units 3 and 4. The operating log will identify at a minimum the dates and times of use and a daily record of equipment hour gauge data. A copy of this operating log will be provided to

the CPM each month during construction, and will be made available to CEC or District staff at all times.

AQ-C5 The project owner shall provide to the CPM and the District, vendor and design data for the SCR and Oxidation catalyst systems, which will include performance guarantees that demonstrate that the systems have been designed to meet the NOx and CO emission concentration limits (5 ppm corrected to 3% O2 for each pollutant) Additionally, the SCR vendor data shall include ammonia slip performance guarantees of 5 ppm corrected to 3% O2.

Verification At least 30 days prior to the installation of the catalyst systems, the project owner shall provide the CPM and the District with a copy of the SCR and Oxidation catalyst systems vendor and design data for approval.

OPERATING CONDITIONS

AQ-1 The project owner shall operate the post-combustion emission control devices (SCR and Oxidation catalyst systems) at all times, except during start-up or breakdowns, as defined by District Rule 430 and 2004, during boiler operation.

Verification: The project owner shall provide operating interlocks, or other control systems, that require the emission control equipment to be in operation during normal operation. At least 15 days prior to the installation of the catalyst systems, the project owner shall provide the CPM documentation on the control systems, procedures, etc. that will be used to ensure proper control of equipment operation.

AQ-2 The project owner shall use only pipeline quality natural gas to fuel Units 3 and 4 and the total sulfur content of the fuel shall be limited to 0.25 grain/100 scf, expressed as H2S.

Verification: The project owner shall test on-site the total sulfur content of the fuel quarterly and shall provide the results of the tests, expressed as equivalent grains of H2S per 100 scf. to the CPM within 30 days of performing each test.

AQ-3 The project owner shall source test Unit 5 for the following pollutants and exhaust parameters prior to September 1, 2001:

Nitrogen Oxides (and NO to NO2 ratio)
Carbon Monoxide
Reactive Organic Gases
PM10
Exhaust Velocity
Temperature

During this source test the project owner shall keep operating records, such as fuel flow, in order to determine appropriate emission factors for Unit 5.

Verification: The project owner shall provide the CPM with the source test protocol and schedule for review 30 days prior to conducting the source test on Unit 5, and shall provide the source test report to the CPM within 30 days of performing the source test. Additionally, the project owner shall allow CEC staff, CEC contractors, or other regulatory agency staff access to the site to observe the Unit 5 source tests.

AQ-4 Through December 31, 2002, Units 3 and 4 shall not operate contemporaneously with Unit 5 unless the ISO has declared a Stage 3 Electrical Emergency and the ISO has specifically called-up Unit 5 to avoid an imminent blackout. After December 31, 2002, operation of Huntington Beach Unit 5 shall cease. These requirements may be superseded by SCAQMD's adoption of omission controls by Best Available Retrofit Control Technology or other means applicable to Unit 5.

Verification: The project owner shall maintain operating records that identify contemporaneous periods of operation for Units 3 and 4 and Unit 5 along with the ISO emergency declaration or other documentation that verifies compliance with this condition. This compliance documentation shall be submitted to the CPM on a quarterly basis. If the project owner intends to install Best Available Retrofit Control Technology (BARCT) on Unit 5, the project owner will provide the CPM a BARCT assessment document prior to initiating air quality permitting and shall provide the CPM a copy of all permitting documents for review during the BARCT permitting process.

AQ-5 The project owner shall investigate the feasibility of installing continuous omission monitors (CEMs) for ammonia on the stacks of Units 1 and 2 and Units 3 and 4 as a means of demonstrating compliance with required ammonia limits. If the use of an ammonia CEM system is found to be feasible and cost effective, it shall be installed and operating by the time Units 3 and 4 begin normal operation.

Verification: The project owner shall provide to the CPM the ammonia CEM feasibility report 30 days prior to beginning the normal operation of Units 3 and 4. The feasibility report, at a minimum will identify the available ammonia monitoring systems, their technical specifications and detection ranges, costs; if necessary, any reasons why these systems are not technically feasibility for the HBGS; and if applicable the installation schedule and record keeping procedures for the ammonia CEMs that may be installed.

AQ-6 The initial commissioning of the Unit 3 and Unit 4 boilers shall not be performed concurrently, initial commissioning shall be limited to 48 hours for each boiler, and the input heat rate during initial commissioning of each boiler shall be limited to a total of 120 MMBtu/hr.

Verification: The project owner shall provide to the CPM, within 15 days of initial commissioning, the hourly fuel flow data for the initial commissioning period of each boiler.

AQ-7 The Unit 3 and Unit 4 boilers shall not be operated in start-up mode concurrently, each start-up (not including initial commissioning) shall be limited to 12 hours for each boiler, and the heat rate during initial commissioning of each boiler shall be limited to a total of 120 MMBtu/hr until the SCR is operational.

Verification: The project owner shall provide to the CPM quarterly records of the hourly fuel flow data and SCR operating data for the start-ups for each boiler.

AQ-8 The project owner shall maintain compliance with the District's FDOC and PTC/PTO conditions, including all monitoring and record keeping provisions.

Verification: The project owner shall provide to the CPM, on a quarterly basis within 30 days of the end of each quarter, a summary of the permit compliance status that, at a minimum, includes a summary of compliance with all District permit conditions and all CEC Air Quality Conditions of Certification, a listing and copies of notices of violation received from SCAQMD, ongoing status of any SCAQMD enforcement actions, and a listing of air quality related (i.e. odor, opacity, etc.) community complaints received by the project owner.

AQ-9 The project owner shall maintain compliance with the District's source testing requirements.

Verification: The project owner shall provide to the CPM copies of all District required source tests within 45 days of conducting those tests.

AQ-10 The project owner shall maintain compliance with the District's continuous emissions monitoring system (CEMS) requirements, including all record keeping requirements.

Verification: The project owner shall provide to the CPM, on a quarterly basis within 30 days of the end of each quarter, summaries of the CEMS data as required to be kept by District permit conditions, and as necessary to summarize data from CEMS that may be required by other CEC Conditions of Certification.

AQ-11 Units 3 and 4 shall not be operated unless the project owner demonstrates that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, the equipment shall not be operated unless the project owner demonstrates that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

Verification: The project owner shall provide operating records, including fuel use data and total operating hours for Units 3 and 4 and Unit 5, to the CPM on a quarterly basis within 30 days of the end of each quarter. The project owner shall also provide to the District and the CPM a quarterly NOx emissions profile of the entire Huntington Beach

~~Generating Station verifying that there are sufficient NOx RECLAIM trading credits allocated for continued project operation.~~

AQ-SC1 All construction and maintenance equipment brought on site shall be powered by the cleanest engines available that also comply with the California Air Resources Board's (ARB's) Regulation for In-Use Off-Road Diesel Fleets (California Code of Regulations, title 13, , section 2449 et.seq.). Specifically:

a. All off-road vehicles with compression ignition engines shall comply with the California Air Resources Board's (ARB's) regulation for In-Use Off-Road Diesel Fleets.
b. To meet the highest level of emissions reduction available, each piece of diesel-powered equipment shall be powered by a Tier 4 engine (without add-on controls) or Tier 4i engine (without add-on controls), or a Tier 3 engine with a post-combustion retrofit device verified by the ARB or the U.S. EPA for use on the particular engine powering the device. Forparticulate matter, the retrofit device shall be a particulate filter if verified, or a flow-through filter, or at least an oxidation catalyst. For NOx, the device shall meet the latest Mark level verified to be available (as of January 2012, none meet this NOx requirement).
c. For diesel powered equipment where the requirements of Part "b" cannot be met, the equipment shall be equipped with a Tier 3 engine without retrofit control devices or with a Tier 2 or lower Tier engine using retrofit controls verified by ARB or U.S. EPA as the best available control device to reduce exhaust emissions of PM and nitrogen oxides (NOx) unless certified by engine manufacturers or the Air Resources Board that the use of such devices is not practical for the specific engine types used in the facility modification. For purposes of this condition, the use of such devices can be considered "not practical" for the following, as well as other, reasons:
    1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question and the highest level of available control using retrofit or Tier 1 engines is being used for the engine in question; or
    2. The use of the retrofit device would unduly restrict the vision of the operator such that the vehicle would be unsafe to operate because the device would impair the operator's vision to the front, sides, or rear of the vehicle, or
    3. The construction equipment is intended to be on site for 5 work days or less.
d. The CPM may grant relief from a requirement in paragraph "b" or "c" above if the facility representative can demonstrate a good faith effort to comply with the requirement and that compliance is not practical.

Verification: The project owner shall submit in the annual compliance report: (1) a summary of all actions taken to maintain compliance with this condition; (2) a list of all construction and maintenance equipment used on the HBGS Retool Project site during the year, including the owner of that equipment and a letter from each owner indicating that the equipment has been properly maintained; and (3) any

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

AQ-SC2 The project owner shall notify the CPM of any proposed modifications to be made to any air permit associated with HBGS Units 1-5 that affect the HBGS Retool Project and the operation of the synchronous condensers.

Verification: The project owner shall provide notification of any proposed modifications per the condition above in the annual compliance report. The notification is only required for changes that are related to the HBGS Retool Project or synchronous condenser operation.

IT IS SO ORDERED.

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of an Order duly and regularly adopted at a meeting of the California Energy Commission held on November 29, 2012.

AYE: Weisenmiller, Douglas, Peterman, McAllister
NAY: None
ABSENT: None
ABSTAIN: None

Harriet Kallemeyn,
Secretariat