

DOCKETED

Docket Number:	13-AFC-01
Project Title:	Alamitos Energy Center
TN #:	214465
Document Title:	Alamitos Energy Center (AEC) Re-noticing of Public Notice of Intent to Issue Permits
Description:	AEC -Re-noticing of SCAQMD PDOC Public Notice
Filer:	Catherine Rodriguez
Organization:	South Coast Air Quality Management District
Submitter Role:	Public Agency
Submission Date:	11/10/2016 4:19:56 PM
Docketed Date:	11/10/2016



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • <http://www.aqmd.gov>

NOTICE OF INTENT TO ISSUE PERMITS (RE-NOTICE) PURSUANT TO SCAQMD RULES 212 (STANDARDS FOR APPROVING PERMITS), 1710 (PSD ANALYSIS, NOTICE, AND REPORTING), 1714 (PSD GREENHOUSE GASES) AND 3006 (TITLE V)

Note: This is a re-notice of an earlier notice published for this project on July 8, 2016. This re-notice is to provide interested parties the opportunity to review South Coast Air Quality Management District's (SCAQMD's) preliminary analysis concurrently with the California Energy Commission's (CEC's) Preliminary Staff Assessment (PSA) which was made available by CEC on July 13, 2016 (http://docketpublic.energy.ca.gov/PublicDocuments/13-AFC-01/TN212284_20160713T160604_Preliminary_Staff_Assessment.pdf). There is no change in the documents that are being released as part of this re-noticing. If you have already submitted comments on this notice during the previous review period that ended August 9, 2016 then you do not need to re-submit the same comments. However, any new comments can be submitted as described below.

This notice is to inform you that the South Coast Air Quality Management District (SCAQMD) has received permit applications from AES Alamitos, LLC for the Alamitos Energy Center (AEC) which will consist of the replacement of four existing electric generating utility boilers with six new electric generating gas turbines at Alamitos Generating Station in Long Beach, California. After a careful review and a detailed evaluation of the AEC, SCAQMD has determined that the proposed project complies with all applicable federal, state and local air quality rules and regulations. Therefore, SCAQMD intends to issue Permits to Construct for the AEC and to revise the Title V permit for this facility. However, prior to issuance of the final Title V permit, SCAQMD is providing another opportunity for public comments on the SCAQMD's proposed decision.

The SCAQMD is the air pollution control agency for the four-county region including all of Orange County and non-desert parts of Los Angeles, Riverside and San Bernardino Counties. Anyone wishing to install or modify equipment that could control or be a source of air pollution within this region must first obtain a permit from the SCAQMD. Under certain circumstances, before a permit is granted, a public notice, such as this, is prepared by the SCAQMD. For this project, public notification is required in accordance with SCAQMD Rule 212(c)(2), Rule 212(g) and Rule 1710(b) because the emissions from the new gas turbines exceed the public notice thresholds for these rules. Public notification is also required by SCAQMD Rule 3006(a) and Rule 1714(e) because there will be a significant revision to the facility's existing Title V air permit and the AEC is subject to a Prevention of Significant Deterioration (PSD) Permit due to its greenhouse gas emissions. Public notification is also required by SCAQMD Rule 212(c)(1) because the project will be located within 1000 feet of Rosie the Riveter Charter High School, located at 690 N. Studebaker Road, Long Beach, CA 90803.

The SCAQMD has evaluated the permit applications listed below for the following facility and determined that the AEC meets or will meet all applicable federal, state and SCAQMD air quality rules and regulations as described below:

FACILITY: AES Alamitos, LLC
 Facility ID No. 115394
 690 N. Studebaker Rd
 Long Beach, CA 90803

CONTACT: Stephen O’Kane
 AES Southland
 690 N. Studebaker Rd.
 Long Beach, CA 90803

SCAQMD APPLICATION NUMBERS

Application No.	Equipment Description
579140	RECLAIM/Title V Significant Revision
579142	GE 7FA.05 Combined-Cycle Gas Turbine Generator, Unit CCGT-1
579143	GE 7FA.05 Combined-Cycle Gas Turbine Generator, Unit CCGT-2
579145	GE LMS-100PB Simple-Cycle Gas Turbine Generator, Unit SCGT-1
579147	GE LMS-100PB Simple-Cycle Gas Turbine Generator, Unit SCGT-2
579150	GE LMS-100PB Simple-Cycle Gas Turbine Generator, Unit SCGT-3
579152	GE LMS-100PB Simple-Cycle Gas Turbine Generator, Unit SCGT-4
579158	Auxiliary Boiler
579160	Air Pollution Control Equipment, SCR/CO Catalyst for Turbine, Unit CCGT-1
579161	Air Pollution Control Equipment, SCR/CO Catalyst for Turbine, Unit CCGT-2
579162	Air Pollution Control Equipment, SCR/CO Catalyst for Turbine, Unit SCGT-1
579163	Air Pollution Control Equipment, SCR/CO Catalyst for Turbine, Unit SCGT-2
579164	Air Pollution Control Equipment, SCR/CO Catalyst for Turbine, Unit SCGT-3
579165	Air Pollution Control Equipment, SCR/CO Catalyst for Turbine, Unit SCGT-4
579166	Air Pollution Control Equipment, SCR for Auxiliary Boiler
579167	Aqueous Ammonia Storage Tank for Combined-Cycle Turbines
579168	Aqueous Ammonia Storage Tank for Simple-Cycle Turbines
579169	Oil/Water Separator for Combined-Cycle Turbines
579170	Oil/Water Separator for Simple-Cycle Turbines

PROJECT DESCRIPTION

The proposed AEC will replace four existing electric utility boiler generator Units 1, 2, 3 and 5 which have been in operation since the 1950’s and 1960’s with a new gas turbine generating system. The new generating system will consist of two natural gas-fired GE 7FA.05 combined-cycle gas turbine generators configured with a shared steam turbine generator and four natural gas-fired GE LMS100PB simple-cycle turbine generators. The combined generating capacity of the AEC will be 1094.7 megawatts (MW) (nominal) which replaces the generating capacity of the existing Unit 1 (175 MW), Unit 2 (175 MW), Unit 3 (320 MW), and Unit 5 (480 MW) at the Alamitos site. The new AEC will be equipped with air pollution control equipment, which consists of catalysts (selective catalytic reduction and oxidation catalysts). Additional new proposed equipment will include an auxiliary boiler equipped with selective catalytic reduction, two aqueous ammonia storage tanks, and two oil/water separators.

EMISSIONS

During normal operation, the total potential maximum daily, monthly, and annual emissions of criteria pollutants from the operation of the new AEC are estimated not to exceed the emission levels listed in the table below. In addition, the new AEC will generate emissions of greenhouse gases (GHGs). The total quantity of GHGs is calculated using the global warming potential for each compound and expressed in an amount equivalent to Carbon Dioxide (CO₂) emissions (CO₂ equivalent). The emissions listed below are

strictly from the new equipment and do not include any emission reductions associated with the removal from service of the existing electric utility boiler generator Units 1, 2, 3 and 5.

Pollutant	Max Potential Emissions (Tons)		
	Daily	Monthly	Annual
Nitrogen Oxides (NO _x)	0.92	27.48	137.06
Carbon Monoxide (CO)	1.44	43.20	269.80
Volatile Organic Compounds (VOC)	0.39	11.59	68.31
Particulate Matter (diameter less than 10 microns, PM ₁₀ , or diameter less than 2.5 microns, PM _{2.5})	0.52	15.66	69.52
Sulfur Oxides (SO _x)	0.20	6.04	10.19
Ammonia (NH ₃)	0.28	8.26	98.85
Carbon Dioxide equivalent (CO _{2equivalent})	4769	143,077	1,716,926

The proposed AEC will not result in an increase in the basin wide electrical generating capacity since the total electrical generating capacity of the new AEC is offset by the generating capacity it replaces, including Units 1, 2, 3 and 5 at Alamitos. SCAQMD Rule 1304(a)(2) provides an offset exemption for an electric utility boiler replacement project such as this project. Therefore, the applicant is not required to provide emission offsets for VOC, PM₁₀, and SO_x for the electrical generating equipment. However, the applicant is required to provide emission offsets for VOC, PM₁₀, and SO_x emissions for the auxiliary boiler. Emission offsets will be in the form of emission reduction credits (ERCs). Also, the South Coast Air Basin meets and is in attainment with ambient air quality standards for CO, so no CO offsets are required. All of the NO_x emissions from this facility have to be offset with emission credits that AES Alamitos, LLC either holds or purchases through the Regional Clean Air Incentive's Market (RECLAIM) in the form of RECLAIM Trading Credits (RTCs). Finally, the total facility's potential emissions (the proposed new AEC and all other equipment) of PM_{2.5} will be limited to less than 100 tons per year, therefore the new AEC will not trigger the threshold for PM_{2.5} offset requirements as per SCAQMD Rule 1325. The NO_x RTCs are required to be provided by AES Alamitos, LLC prior to the AEC commencing its operation in accordance with SCAQMD RECLAIM Rule 2005.

As a result of burning natural gas in the gas turbines and auxiliary boiler, emissions from the proposed project also contain small quantities of pollutants that are considered air toxics under SCAQMD Rule 1401-New Source Review of Toxic Air Contaminants. Therefore, a health risk assessment (HRA) has been performed for the AEC. The health risk assessment uses health protective assumptions in estimating maximum risk to an individual person. Even assuming this health protective condition, the evaluation shows that the maximum individual cancer risk (MICR) increase from the gas turbines, the auxiliary boiler and the total project, as a whole, even without considering the emission reductions from old equipment being replaced, is less than ten-in-one million and in compliance with SCAQMD's risk thresholds listed in Rule 1401. Also, acute and chronic indices, which measure non-cancer health impacts, are less than one. According to the state health experts, a hazard index of one or less means that the surrounding community including the most sensitive individuals such as very young children and the elderly will not experience any adverse health impacts due to exposure to these emissions. These levels of estimated risk are below the threshold limits of SCAQMD Rule 1401(d) established for new or modified sources. The HRA results are shown in the table below:

Equipment	MICR (in a million)		Non-Cancer Hazard Index	
	Resident	Worker	Acute	Chronic
Facility HRA	1.1	0.052	0.0188	0.00364

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) FOR CRITERIA POLLUTANTS

The South Coast Air Basin is in attainment with the national ambient air quality standards for Nitrogen Dioxide (NO₂), Sulfur Dioxide (SO₂), Carbon Monoxide (CO) and Particulate Matter with aerodynamic diameter less than 10 microns (PM₁₀); therefore, the NO₂, SO₂, CO, and PM₁₀ emissions from the project are subject to the SCAQMD's Prevention of Significant Deterioration (PSD) regulation (Regulation XVII).

The Alamitos Generating Station is classified as a major stationary source, and the estimated maximum project impacts for NO₂ of 31.3 micrograms per cubic meter (µg/m³) exceed the PSD significance impact level (SIL) of 7.5 µg/m³. Therefore, an incremental modeling analysis is required to demonstrate that the proposed AEC does not cause, or make significantly worse an existing, 1-hour NO₂ violation of the national ambient air quality standard (NAAQS). The results of the incremental modeling analysis show that the peak contribution from the proposed AEC plus cumulative projects plus background is 251.3 µg/m³, which exceeds the existing 1-hour NO₂ NAAQS of 188 µg/m³. An examination of each facility's contributions to the modeled exceedances shows that AEC's maximum contributions to the modeled exceedances is 6.9 µg/m³, which is less than the 1-hour NO₂ SIL of 7.52 µg/m³. Therefore, the AEC is not considered a significant source and does not cause or contribute to the modeled exceedance.

Also based on the result of a screening analysis of the potential impacts to Class I wilderness areas, the AEC will not impact visibility on the nearest Class I areas (i.e., San Gabriel Wilderness area). The U.S. Department of Agriculture – Forest Services have reviewed the PSD modeling analysis. Based on all of these analysis and evaluations, the SCAQMD has determined that the proposed AEC is expected to comply with all PSD requirements for criteria pollutants.

PREVENTION OF SIGNIFICANT DETERIORATION (PSD) FOR GREENHOUSE GASES

Based on the proposed AEC maximum potential greenhouse gas (GHG) emissions, the proposed project is subject to preconstruction review for GHGs. SCAQMD staff has evaluated the GHG emissions from the AEC for compliance determination with applicable federal, state, and local air quality requirements. The AEC is found to comply with Rule 1714 BACT requirements for GHG emissions through the use of energy efficient gas turbines.

Based on the result of our detailed analysis and evaluation, the SCAQMD has determined that the AEC complies with all applicable federal, state and SCAQMD air quality Rules and Regulations and, therefore, SCAQMD intends to issue the Permits to Construct for the equipment described above. However, prior to issuance of a final permit, SCAQMD is providing another opportunity for a 30-day public comment period and an EPA review period. SCAQMD will consider issuance of the final permit only after all pertinent public and EPA comments, if any, have been received and considered, and after CEC's final approval of the AFC for this project.

This facility is classified as a federal Title IV (Acid Rain) and Title V facility. **Pursuant to SCAQMD Rule 3006 – Public Participation, any person may request a proposed permit hearing on an application for an initial, renewal, or significant revision to a Title V permit by filing with the Executive Officer a complete Hearing Request Form (Form 500G) for a proposed hearing no later than December 2, 2016.** This form is available on the SCAQMD website at <http://www.aqmd.gov/docs/default-source/grants/500-g-form.pdf?sfvrsn>, or alternatively, the form can be made available by contacting Ms. Vicky Lee at the e-mail and telephone number listed below. In order for a

request for a public hearing to be valid, the request must comply with the requirements of SCAQMD Rule 3006 (a)(1)(F). On or before the date the request is filed, the person requesting a proposed permit hearing must also send by first class mail a copy of the request to the facility address and contact person listed above.

The proposed permits and other information (including a detailed engineering analysis called the Preliminary Determination of Compliance (PDOC)) are available for public review at the SCAQMD's headquarters in Diamond Bar, at the Bay Shore Neighborhood Library, 195 Bay Shore Avenue, Long Beach, CA 90803, and also on SCAQMD's website at <http://www3.aqmd.gov/webappl/PublicNotices2/> by entering the company's or the facility ID No. 115394. Additional information including the facility owner's compliance history submitted to the SCAQMD pursuant to California Health and Safety Code Section 42336, or otherwise known to the SCAQMD, based on credible information, is available at the SCAQMD for public review by contacting Ms. Vicky Lee (vlee1@aqmd.gov), Engineering and Permitting, South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, CA 91865-4182, (909) 396-2284.

Anyone wishing to comment on the air quality elements of the permits must submit comments in writing to the SCAQMD at the above mailing address or by email, attention Mr. Andrew Lee (alee@aqmd.gov). **Comments must be received no later than December 20, 2016.** If you are concerned primarily about the property zoning decisions at this location, contact the local city or county planning department for the city or unincorporated county in which the facility is located. For your general information, anyone experiencing air quality problems such as dust or odor can telephone in a complaint to the SCAQMD 24 hours a day by calling toll free 1-800-CUT-SMOG (1-800-288-7664).

Right to Petition U.S. Environmental Protection Agency (EPA) for Reconsideration: Title V Permits are also subject to review and approval by US EPA. If a public comment is sent to the SCAQMD for this permit, and the SCAQMD has not addressed the comment in a satisfactory manner, and the EPA has not objected to the proposed permit, then the public may submit a petition requesting that the EPA reconsider the decision not to object. Petitions shall be submitted to US EPA, Region 9, Operating Permits Section at 75 Hawthorne Street, San Francisco, CA 94105, within 60 days after the end of the 45-day EPA review period. The EPA review period for this permit starts no earlier than November 10, 2016. EPA's review status may be found at <http://www2.epa.gov/caa-permitting/electronic-permit-submittal-system-region-9>.