

DOCKETED

Docket Number:	13-AFC-01C
Project Title:	Alamitos Energy Center - Compliance
TN #:	229087
Document Title:	CEC Staff's Data Request
Description:	Data Requests Regarding Alamitos Energy Center Project: Auxiliary Boiler Petition
Filer:	Patty Paul
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	7/25/2019 4:16:09 PM
Docketed Date:	7/25/2019



July 25, 2019

Jeff Miller, Compliance Manager
AES, Alamitos Energy Project
690 N Studebaker Rd, Long Beach, CA 90803

Dear Mr. Miller,

ALAMITOS ENERGY CENTER PROJECT: AUXILIARY BOILER PETITION

Pursuant to Title 20, California Code of Regulations, section 1769, the California Energy Commission (Energy Commission) staff (staff), requests the information specified in the enclosed Data Requests. The information requested is necessary for Commission staff to more fully understand the project and assess whether the project will result in adverse impacts.

This set of Data Request (#1) is being made in the area of Air Quality. The Data Requests were developed as a result of staff's review of the Petition to Amend (PTA) for the Alamitos Energy Center (AEC).

If you are unable to provide the information requested, or object to providing the requested information, please notify me as soon as possible of receipt of this request. Any objections to the Data Requests must contain the reasons for not providing the information, and the grounds for any objections (see Title 20, California Code of Regulations, section 1769).

If you have any questions, please call me at (916) 653-4677, or e-mail me at Joseph.Douglas@energy.state.ca.us.

Sincerely,

Joseph Douglas,
Compliance Project Manager

Enclosure:
Data Requests

**ALAMITOS ENERGY CENTER (13-AFC-01C)
DATA REQUESTS**

Technical Area: Air Quality

Author: Nancy Fletcher

AES Alamos Energy, LLC (AES) submitted a PTA for the AEC Project to incorporate changes to the auxiliary boiler and auxiliary boiler selective catalytic reduction (SCR) conditions of certification (TN# 228908, dated July 5, 2019). AES is requesting the Energy Commission to approve the following:

- Increase the total number of auxiliary boiler commissioning hours from 30 to 100.
- Minor changes to permit conditions affecting the auxiliary boiler commissioning.
- Increase the minimum ammonia injection rate for the auxiliary boiler.

AES submitted applications to the South Coast Air Quality Management District (SCAQMD) on 5/11/2018 and 6/6/2019 to incorporate these changes to the SCAQMD issued permits. The SCAQMD processed the proposed changes as administrative and minor permit changes. The SCAQMD issued the revised Title V permit on July 10, 2019.

Staff has reviewed the submitted PTA and SCAQMD permit evaluation. Staff requests additional information to complete the air quality analysis.

EQUIPMENT COMMISSIONING OVERLAP: BACKGROUND

The AEC license includes Air Quality Staff Condition of Certification **AQ-SC9**, requiring the auxiliary boiler to complete commissioning activities prior to commissioning the combined-cycle gas turbine Power Block 1 (CCGT). The AEC Final Staff Analysis (FSA) states the condition is needed since auxiliary boiler commissioning overlap with CCGT commissioning was not included as a modeling scenario.

Commissioning modeling and emission assumptions were explained in the responses from AES to staff in the licensing data requests (Air Quality 105-136). See specifically data requests AQ 117, 128, 129, and 130). The AES responses to these data requests includes the following statements:

“The auxiliary boiler commissioning process includes first burner light-off, conditioning, establishing the air/fuel ratio curve, and establishing the SCR ammonia injection curve. The auxiliary boiler commissioning will occur over 5 days and will require up to 6 fired hours per day. The auxiliary boiler commissioning emissions will be the same as the auxiliary boiler cold startup emissions, presented in Table DR117-1 below.”

“The operating assumptions used to assess modeled short-term impacts from the auxiliary boiler were those for steady-state operation. This does not coincide with the worst- case impacts for the auxiliary boiler, but rather for the facility as a whole. The worst-case short-term modeled impacts for the facility occur when the CCGTs are in startup mode, and the auxiliary boiler is running at steady- state. Startup of the auxiliary boiler will occur prior to the startup of the CCGTs.”

ALAMITOS ENERGY CENTER (13-AFC-01C)
DATA REQUESTS

The SCAQMD auxiliary boiler evaluation for the current AES proposal describes the auxiliary boiler commissioning as occurring in two phases. The first phase is prior to the connection to the CCGT. The second phase would occur during the commissioning of the CCGT. The evaluation states it is unclear if the emissions from the auxiliary boiler would be fully abated during the CCGT commissioning.

Staff recognizes commissioning of the CCGT and auxiliary boiler are short-term operations, both the auxiliary boiler and CCGT will not be in continuous operations during the commissioning process, and the previously modeled commissioning scenario for the turbines conservatively assumes both turbines are undergoing commissioning activities with unabated emissions.

DATA REQUESTS

1. Please quantify the auxiliary boiler emission rates during the combined cycle commissioning period. Would the auxiliary boiler operating scenarios result in emission rates above the previously modeled rates at the same time the turbines are firing in elevated commissioning emission rates?
2. If elevated emission rates from the auxiliary boiler are expected during the same hour as turbine commissioning activities, please provide a brief explanation of how the modeled commissioning scenario would still represent maximum commissioning impacts of the CCGT.
3. Please describe any best management practices or measures AES would employ to minimize emissions during the commissioning of the CCGT.