

BEFORE THE HEARING BOARD
OF THE
BAY AREA AIR QUALITY MANAGEMENT DISTRICT
STATE OF CALIFORNIA

Docket Number

Helping Hand Tools (2HT)

Complainant

Accusation of Violation of
Regulations 2-2-604, 2-5-101,
2-1-305, 2-2-304, 2-2-301.2

Delta Energy Center LLC (DEC).

Respondent

Introduction

The Delta Energy Center (DEC) is a nominal 880 megawatt combined cycle natural gas fired power plant that was certified by the Energy Commission in February 2000. Currently the Delta Energy Center is the second largest GHG emitting power plant in the State of California. In 2015 the Delta Energy Center emitted 1,812,158 metric tons of CO₂E according to the ARB GHG database. The power plant commenced commercial operation on June 17, 2002. It is located in the City of Pittsburg in Contra Costa County. On January 29, 2017, an explosion and fire occurred at the Calpine's Delta Energy Center that rendered the power plant inoperable. On February 22nd, 2017, Delta Energy Center filed a petition to amend at the CEC requesting modifications to isolate the steam turbine and run the facility in simple cycle mode. On March 21, 2017 over the objections of 2HT the California Energy Commission issued an

order approving the “safety amendment” to allow the Delta Energy Center to operate in simple cycle mode.¹ 2HT currently has a motion for reconsideration of the CEC’s decision pending.²

Allegation

The amendment changes the method of operation of the DEC converting it to a simple cycle unit from a combined cycle unit. BAAQMD Regulation 2-2-604 provides an Emission Increase/Decrease Calculation Procedures for New Sources and Changes at Existing Sources. As provided in Regulation 2-2-604, “The amount of any emissions increase (or decrease) associated with a new source, or with a physical change, change in the method of operation, change in throughput or production, or other similar change at an existing source, shall be calculated according to the following procedures. BAAQMD Regulation 604.2 provides the method to compute emission increases that result from a Change to Existing Source. Regulation 604.2 provides that, “The emissions increase (or decrease) associated with a physical change, change in the method of operation, change in throughput or production, or other similar change at an existing source (including a permanent shutdown of the source) shall be calculated as the difference between: (i) the source’s potential to emit after the change; and (ii) the source’s adjusted baseline emissions before the change, calculated in accordance with Section 2-2-603. The Delta Energy Centers three year baseline emissions are calculated pursuant to BAAQMD regulation 603-2, The DEC emitted 136.5 tons of NOx in 2015,³ 143.1 tons of NOx in 2014⁴ and 154.3 tons of NOx in 2013 for an average of 144.6 tons per NOx over the last three years. Since the amendment does not change the potential to emit as provided for in the 2000 FDOC the DEC’s potential to emit in simple cycle mode for the DEC is 298.7 tons per year of NOx leading to an emission increase of over 150 tons per year of NOx which triggers BAAQMD ATC, BACT, and PSD requirements. All of the BACT determinations imposed by the 2000 FDOC

¹ doCKETpublic.energy.ca.gov/PublicDocuments/98-AFC-03C/TN216644_20170321T152700_Order_Approving_Petition_to_Amend.pdf

² doCKETpublic.energy.ca.gov/PublicDocuments/98-AFC-03C/TN216904_20170407T155502_robert_james_simpson_Comments_HELPING_HAND_TOOLS%E2%80%99_AND_ROBERT_SI.pdf

³ <https://www.arb.ca.gov/app/emsinv/facinfo/facdet.php?co =7&ab =SF&facid =12095&dis =BA&dbyr=2013&dd =3https://www.arb.ca.gov/app/emsinv/facinfo/facdet.php?co =7&ab =SF&facid =12095&dis =BA&dbyr=2015&dd =>

⁴ <https://www.arb.ca.gov/app/emsinv/facinfo/facdet.php?co =7&ab =SF&facid =12095&dis =BA&dbyr=2014&dd =>

were based on assumption that facility would be operating in combined cycle mode.⁵ Now that the facility is proposed to be operated in simple cycle mode new BACT determinations should be imposed pursuant to Rule 2-2-301.⁶ Simple cycle units in the BAAQMD now utilize 1 ppm VOC limit as BACT, a 2ppm CO limit as BACT, and an ammonia slip limit of 5 ppm.

The modification would also be a violation of the projects Title V permit since the existing Title V permit does not allow any alternative operating scenarios.⁷ An Alternative operating scenario is defined in 40 CFR 70.2. as "*Alternative operating scenario* means a scenario authorized in a [Title V] permit that involves a change at the ... source for a particular emissions unit, and that either results in the unit being subject to one or more applicable requirements which differ from those applicable to the emissions unit prior to implementation of the change or renders inapplicable one or more requirements previously applicable to the emissions unit prior to implementation of the change." The Title V permit authorizes no alternative operating scenario.⁸ The operating scenario provided in the FDOC for the DEC calculates emissions based on the 6,844 hours of baseload (100% load) operation per year for each CTG @ 30oF, 1,500 hours of duct burner firing per HRSG per year with steam injection power augmentation at CTG combustors, 156 one-hour hot start-ups per CTG per year and 52 three-hour cold start-ups per CTG per year⁹

The project must provide a new health risk assessment to comply with BAAQMD Regulation 2-5-101 which provides that , *“The purpose of this rule is to provide for the review of new and **modified** sources of toxic air contaminant (TAC) emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control*

⁵ FDOC page 11,12 http://www.energy.ca.gov/sitingcases/delta/documents/intervenors/1999-10-21_FDOC.PDF

⁶ And District Rule 2-2-304

⁷ Permit Evaluation and Statement of Basis for MAJOR FACILITY REVIEW PERMIT RENEWAL for Delta Energy Center, LLC Facility #B2095 Page 26 www.baaqmd.gov/~media/files/engineering/title-v-permits/b2095/b2095_2011-4_renewal-sob_03.pdf?la=en

⁸ Permit Evaluation and Statement of Basis for MAJOR FACILITY REVIEW PERMIT RENEWAL for Delta Energy Center, LLC Facility #B2095 Page 26 www.baaqmd.gov/~media/files/engineering/title-v-permits/b2095/b2095_2011-4_renewal-sob_03.pdf?la=en

⁹ FDOC page 4 http://www.energy.ca.gov/sitingcases/delta/documents/intervenors/1999-10-21_FDOC.PDF

when existing sources are modified or replaced. The rule applies to a new or modified source of toxic air contaminants that is required to have an authority to construct or permit to operate pursuant to Regulation 2, Rule 1.” Since the emission profile for the DEC has changed the projects health risk assessment must be reevaluated for operation in simple cycle mode to identify and prevent potential impacts to the environmental justice community.

The modification as proposed does not comply with BAAQMD Rule **2-1-305** **Conformance with Authority to Construct which requires that**, “*A person shall not put in place, build, erect, install, modify, modernize, alter or replace any article, machine, equipment, or other contrivance for which an authority to construct has been issued except in a manner substantially in conformance with the authority to construct. If the APCO finds, prior to the issuance of a permit to operate, that the subject of the application was not built substantially in conformance with the authority to construct, the APCO shall deny the permit to operate.”* The permit to operate authorizes operation of the project in combined cycle mode only not simple cycle mode.