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Applicant Responses to Public Comments Received Regarding Preliminary Determination of Compliance for the Marsh Landing Generating Station

Below are the Applicant's responses to comments on the Preliminary Determination of Compliance (PDOC) received from the Local Clean Energy Alliance (LCEA), Robert Sarvey, and Rob Simpson. We have excerpted comments from each letter and responded specifically to each comment.

# Response to Comments Received from the Local Clean Energy Alliance (LCEA)

## **Comment (LCEA-1):**

After reviewing the permit, we have identified a number of shortcomings of the PDOC that would be prudent to address. They include analyses based on faulty information as well as the omission of analyses required of a project of this scope.

The purpose of this letter is to document these shortcomings and argue that they are inconsistent with a determination not to subject this facility to PSD review. The general deficiencies are the following:

- Prevention of Significant Deterioration Requirements Apply and a PSD Review is Necessary
- The PDOC Failed to Include an Appendix S Evaluation for PM-2.5
- The PDOC Does not Meet the Requirements for Best Available Control Technologies
- The PDOC Fails to Comply With Environmental Justice Requirements
- The PDOC Fails to Mitigate Greenhouse Gas Emissions

#### **Response:**

The Applicant disagrees with the comment that there are shortcomings in the PDOC. The PDOC reflects an extremely thorough analysis by the Air District and proposes extensive, stringent conditions to ensure that the Marsh Landing Generating Station (MLGS) complies with all applicable air quality laws and regulations. The alleged deficiencies noted in the comment are addressed in the responses below.

#### **Comment (LCEA-2):**

The federal PSD program applies to "major" stationary sources, which are defined as new sources that emit more than 250 tons per year of any PSD pollutant. Facilities that exceed the federal PSD "major source" threshold for any of these pollutants must apply for and obtain PSD permits before they can commence construction. The Contra Costa Power Plant (CCPP) is classified as a "major source," because it was built before current regulatory requirements were adopted.

A "major source" facility needs to obtain a federal PSD permit for any "major modification," which is defined as any change in the facility that results in an increase in emissions of any PSD

pollutant above certain "significant" emission rates defined in 40 CFR 52.21(b)(23). The new Marsh Landing facility does emit more than the significant thresholds listed in 40 CFR 52.21(b)(23). The question of whether the new Marsh Landing Generating Station (MLGS) will be a "modification" to the existing CCPP depends on whether the two power plants taken together are one single "facility" as defined by Title 40 CFR § 52.21(b)(6). If they are both part of the same "facility," then the construction of the new MLGS would be a "modification" to that "facility" and the project would be subject to PSD regulations.

Title 40 CFR § 52.21(b)(6) defines a facility as follows:

[A]ll of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e., which have the same first two digit code) as described in the Standard Industrial Classification Manual.

Using the above criteria, there is no dispute that the proposed MLGS and the CCPP are in the same SIC Major Group and are located on adjacent properties. The question of whether they would be a single "facility" depends on whether they are under the control of the same person (or persons under common control).

## **Response:**

The MLGS is not a major source facility because its emissions will not exceed the major source threshold for any attainment pollutant. For the reasons described in the responses below, the MLGS also is not a major modification to a major source facility. Therefore, the MLGS does not need to obtain a federal Prevention of Significant Deterioration (PSD) permit.

The commenter has accurately summarized the federal PSD provisions most relevant to determining whether a PSD permit is needed for the MLGS. However, the comment does not correctly state the basis for considering the Contra Costa Power Plant (CCPP) a "major stationary source." The explanation for CCPP's major source classification is provided on page 1 of Mirant's November 2009 White Paper on PSD/New Source Review Applicability ("White Paper") (Farabee, 2009). Both the White Paper (page 3) and the Bay Area Air Quality Management District (BAAQMD) PDOC (page 61) state that the MLGS and CCPP are located on adjacent properties and are in the same Standard Industrial Classification Major Group. The commenter is correct that the determination as to whether MLGS and CCPP should be considered the same facility depends on whether they are under "common control." The White Paper explains that MLGS and CCPP will not be under common control and therefore will be separate facilities. Additional support for this conclusion is provided in the responses below.

## **Comment (LCEA-3):**

On February 27, 2008, the applicant (Mirant) sent a letter to the District which stated: "Considered together, the Marsh Landing Generating Facility and the existing Contra Costa Power Facility fall within the District's definition of 'facility' given that they will be located on

properties that are 'contiguous or adjacent,' their respective owners are under the common ownership of Mirant Americas, Inc. (notwithstanding several intervening corporate entities), and their respective operations are in the same industrial grouping." Mirant acknowledged in that same letter that, "Much of EPA's policy guidance regarding co-located facilities relates to situations where parties are seeking to have their facilities classified as completely separate facilities. That guidance generally doesn't apply in this situation."

## **Response:**

This comment relates to the February 27, 2008 letter sent to BAAQMD on behalf of the Applicant seeking BAAQMD's concurrence in the Applicant's request that it issue separate permits for the CCPP and MLGS facilities. As the commenter notes, the request states that "[m]uch of [U.S. Environmental Protection Agency's (U.S. EPA's)] policy guidance regarding co-located facilities relates to situations where parties are seeking to have their facilities classified as completely separate facilities. That guidance generally doesn't apply in this situation." As stated in the February 2008 letter, the referenced U.S. EPA guidance did not apply to the issue raised in that letter, and the analysis in the 2008 request did not evaluate whether there was a basis for treating CCPP and MLGS as separate facilities because that question was not an issue in determining whether CCPP and MLGS could be separately permitted. The February 2008 letter was included as an attachment to the November 2009 White Paper for reference.

## **Comment (LCEA-4):**

Nevertheless, BAAQMD (the District) opted to treat the two projects as separate facilities. On page 62 of the PDOC, the District states:

"EPA has interpreted independent operations such as these not to be a single 'facility' for purposes of PSD permitting under 40 C.F.R. Section 52.21. Since the federal PSD program is EPA's program and the District is required to follow EPA's guidance in interpreting the PSD regulations under Section VII.1 of the Delegation Agreement, the District is proposing to treat the proposed Marsh Landing facility as a separate facility from the existing Contra Costa Power Plant"

#### **Response:**

The comment accurately quotes the PDOC.

#### **Comment (LCEA-5):**

However the U.S. Environmental Protection Agency (EPA) did not make a determination these two facilities were separate under the PSD regulations. What EPA actually said was:

"You requested Mirant to provide the Analysis to us detailing the facts relating to a facility that is proposing to be constructed as a new source in your jurisdiction, called Marsh Landing Generating Station......Based on our review of the facts set forth in the Analysis, we agree that the Bay Area Air Quality Management

District can reasonably exercise your discretionary permitting authority to treat the Marsh Landing Generating Station and Contra Costa Power Plant as separate sources rather than a single stationary source...... "Our evaluation of your decision is limited to the specific facts set forth in Mirant's Analysis and does not establish precedent for any other project or projects."

The District's claim that it is following the EPA's determination is false, as the EPA made no such determination and indicated very clearly that the District had the discretion to make a determination based on facts supplied by Mirant.

## **Response:**

The commenter quotes selectively from U.S. EPA's January 8, 2010 letter to BAAQMD, apparently in an effort to give the impression that U.S. EPA provided no guidance whatsoever on the question of whether MLGS may properly be considered a separate facility from CCPP. However, when the letter is read in its entirety, along with the White Paper to which the letter responded, it is clear that U.S. EPA agrees that BAAQMD may treat CCPP and MLGS as separate facilities. U.S. EPA's statement that BAAQMD "can reasonably exercise [its] discretionary permitting authority" to treat MLGS and CCPP as separate sources was not, as the commenter would have it, a failure to provide guidance, but instead recognizes that BAAQMD, as the permitting authority, has discretion under U.S. EPA policies to treat MLGS and CCPP as separate sources.

#### **Comment (LCEA-6):**

The determination in the PDOC that these two facilities are separate is based on erroneous information provided by Mirant. The District's determination relies on three basic premises:

- A That the MLGS and CCPP have separate ownership
- B That there is a binding agreement to close the CCPP before operations begin at the MLGS
- C That the two facilities do not have common infrastructure or management and operating personnel.

Below we address each issue and demonstrate where the District has relied on incorrect or incomplete information provided by Mirant. The evidence presented below references the permitting record, the CEC proceeding, and other publicly available documents. All three premises are shown to be false, demonstrating that the District made a flawed determination, and that the PDOC should be subject to PSD review.

#### **Response:**

The commenter asserts that the premises relied upon by BAAQMD in determining to treat CCPP and MLGS as separate sources are false or are based on erroneous information. However, the commenter does not provide or identify any new information that would change the District's analysis. All of the facts raised by the commenter (excluding such details as the names of specific management personnel) were addressed in the PDOC or in the Applicant's November 2009 White Paper analysis (which was incorporated by reference into the PDOC (footnote 42,

page 63), and which included by reference and attached the Applicant's letter of February, 2008). The commenter's specific points are addressed below.

## **Comment (LCEA-7):**

Any claim that these two facilities have separate ownership is completely dispelled by the contractual agreement for the CCPP to possibly shut down if Marsh Landing receives its contract from the CPUC and other conditions precedent. If the MLGS and CCPP did not have common ownership such an agreement would not be possible.

In addition, the previously quoted February 27, 2008 letter from Mirant to the District explicitly attests to the common ownership of the two facilities. The situation has not changed since that letter was written, even though Mirant is apparently telling the District otherwise. Both projects are still owned by Mirant Americas, and they have not been divested.

# **Response:**

The comment entirely disregards the facts and analysis provided in the November 2009 White Paper. First, the agreement between Mirant Delta, LLC and Pacific Gas and Electric Company (PG&E) to close CCPP by April 30, 2013 in no way mentions or relies upon California Public Utilities Commission (CPUC) approval of the separate Power Purchase Agreement (PPA) between Mirant Marsh Landing, LLC and PG&E. As described in more detail below in the Response to Comment LCEA-12, CPUC approval of the Mirant Delta, LLC – PG&E agreement is a condition precedent to the April 30, 2013 closure of CCPP, and is unrelated to CPUC action on the PPA for MLGS. Second, the Applicant does not dispute that CCPP and MLGS have ultimate common ownership under Mirant Americas, Inc. and its parent, Mirant Corporation. However, CCPP is owned by Mirant Delta, LLC, and MLGS is owned by Mirant Marsh Landing, LLC. The facilities are separately owned, and will be separately financed and operated, as dictated by the separate life cycles and nature of the facilities.

The commenter correctly notes that the ownership and other aspects of the management of CCPP and MLGS were described in the Applicant's February 2008 letter to BAAQMD, and that the ultimate ownership has not changed since that time. However, the commenter's assertion that "nothing has changed" since the 2008 letter is incorrect. In particular, and as described in the Applicant's November 2009 White Paper, since February 2008 Mirant Delta, LLC has entered into an agreement with PG&E that provides for the shutdown of CCPP beginning on May 1, 2013. Also, Mirant Marsh Landing, LLC separately entered into a PPA with PG&E that resulted in a redesign of the MLGS facility to consist of four simple-cycle gas turbines that would operate as peaking units, and which calls for the MLGS to begin commercial operation on May 1, 2013.

As described in the White Paper and the PDOC, for the purpose of determining whether adjacent facilities should be considered a single source, the question is not simply whether the facilities have ultimate ownership in common. Instead, the question is whether the facilities are subject to common control or will operate independently. In particular, as discussed in the November 2009 White Paper, U.S. EPA has previously determined that adjacent, commonly owned electric power generating facilities could be treated as separate sources where the facilities had separate transmission lines, separate fuel supply contracts, separate power sales contracts, separate gas

metering stations, and separate connections to water and wastewater systems, even when the two facilities are intended to operate concurrently. All of those factors are true for CCPP and MLGS, except that the two plants are not expected to operate at the same time.

## **Comment (LCEA-8):**

Mirant has also stated that, "The Marsh Landing Generating Facility will have its own separate new control room and, to the extent possible, management and operating personnel independent and separate from the management and operation of the existing Contra Costa Generating Facility."

Mirant America owns both entities: Mirant Marsh Landing LLC and Mirant Delta LLC. Furthermore, John Chillemi is the president of Mirant Marsh Landing and Mirant Delta LLC.

## **Response:**

The Applicant does not dispute the statements made in the February 2008 letter to BAAQMD, that Mirant Americas, Inc., is the parent of both Mirant Marsh Landing, LLC and Mirant Delta, LLC, or that John Chillemi is the President of both LLCs. None of this information is new. Moreover, as described above in the Response to Comment LCEA-7, common ultimate ownership and corporate management is not the determining factor for deciding whether two facilities are under common control. Here, MLGS and CCPP have, among other things, separate PPAs, separate fuel supply agreements, separate control rooms and operating personnel, and separate plant managers. The facilities have different functions in supplying energy to the electrical grid, and will be operated independently of each other. Under U.S. EPA policy, this functional independence is the basis for permitting the facilities as separate sources.

## **Comment (LCEA-9):**

The PDOC does not specify *any* commitment to shut down the CCPP. Instead, the PDOC states that, "Mirant Delta, LLC, has agreed that prior to the Air District's issuance of the FDOC for the Marsh Landing facility, Mirant Delta will submit an application for an amendment to its Air District permit to incorporate the foregoing permit condition." There is no binding commitment that the District can point to that the CCPP will close.

#### **Response:**

On May 11, 2010 Mirant Delta, LLC submitted to the District a request to amend the CCPP's Title V Permit and the Permit to Operate to reflect the shutdown commitment set forth in Footnote 2 of the PDOC. Contrary to the commenter's assertion, this condition does reflect a binding, enforceable commitment to shut down the CCPP. The shutdown itself will be contingent upon the satisfaction of the two conditions in the CCPP permit amendment, but once those conditions are satisfied, Mirant Delta, LLC will be obligated to shut down CCPP Units 6-7 at midnight April 30, 2013.

## **Comment (LCEA-10):**

The District's analysis relies on a promise that Mirant will amend the PDOC and insert the following permit condition in the FDOC:

"Subject to: (i) receipt of final, non-appealable California Public Utilities Commission approval of the Tolling Agreement for Units 6 and 7 at the CCPP by and between Mirant Delta, LLC and Pacific Gas and Electric Company and dated as of September 2, 2009, as amended from time to time, without material condition or modification unacceptable to either party thereto in its sole discretion; and (ii) the receipt of all other approvals and consents from the relevant local, state and federal governmental agencies (including but not limited to the California Independent System Operator) necessary for the shutdown and permanent retirement from service of Units 6 and 7; Mirant Delta, LLC will shut down and permanently retire Units 6 and 7 from service at 2400 PDT on April 30, 2013."

## **Response:**

The commitment to seek the specified permit amendment pertains to the permit for CCPP, and is not for inclusion in the MLGS Final Determination of Compliance, as stated by the commenter. Otherwise, the comment accurately quotes the CCPP permit condition regarding CCPP shutdown. Mirant Delta, LLC submitted a permit amendment request to incorporate this condition into its CCPP Title V Permit and Permit to Operate on May 11, 2010. Also see Response to Comment LCEA-9, above.

# **Comment (LCEA-11):**

For the CCPP to shut down, Mirant must receive a, "final, non-appealable California Public Utilities Commission approval of the Tolling Agreement for Units 6 and 7 at the CCPP by and between Mirant Delta, LLC and Pacific Gas and Electricity." That event has not occurred and there is still considerable uncertainty that it will.

## **Response:**

The comment accurately quotes the shutdown condition that Mirant Delta, LLC has requested in an amendment to its Title V Permit and Permit to Operate and is correct that the Tolling Agreement has not yet been approved by the CPUC. The Applicant anticipates that the CPUC will approve the Tolling Agreement in July 2010.

#### **Comment (LCEA-12):**

The MLGS must also receive a final non-appealable CPUC approval of its contract for the Marsh Landing Facility or there will be no shutdown of the Contra Costa Power Plant. That event also has not occurred and there is still considerable uncertainty that it will.

The comment accurately states that the PPA between Mirant Marsh Landing, LLC and PG&E for the MLGS has not yet been approved by the CPUC. The Applicant anticipates that the CPUC will approve the MLGS PPA in July 2010. However, the assertion that the CCPP will not be shut down unless the MLGS PPA is approved by the CPUC is incorrect. The two pending contracts are entirely separate and independent from each other, and the approval of one contract is not conditioned on the approval of the other, nor is the operation of the CCPP connected to or dependent on the approval of the MLGS or its PPA. Moreover, consistent with the U.S. EPA guidance analyzed in the November 2009 White Paper already provided to the District and discussed above, the two facilities are and will be separate for the purposes of the Clean Air Act even if they operate simultaneously.

## **Comment (LCEA-13):**

Even if the contingences in the proposed condition above are met, Mirant can, under the terms of the proposed condition, at its "own discretion" refuse to close the CCPP if it does not approve of a material condition or modification of the PPA with PG&E.

## **Response:**

The comment mischaracterizes Mirant Delta's commitment to shutting down the CCPP. The "discretionary" constraint the comment refers to applies not to the shutdown itself, but to the terms of the PPA with PG&E that is currently pending approval before the CPUC. Once the two conditions in the CCPP shutdown amendment are satisfied, Mirant Delta will have no discretion concerning its obligation to shut down and permanently retire the CCPP at midnight April 30, 2013.

#### **Comment (LCEA-14):**

It takes the consent of relevant local, state, and federal governmental agencies to shut down Units 6 and 7 of the CCPP.

#### **Response:**

This assertion is incorrect. Mirant Delta, LLC will submit a notice of its intent to shut down the CCPP to the CPUC and the California Independent System Operator (CAISO) at least 90 days prior to the shutdown date of April 30, 2013. The shutdown is subject only to the CAISO's or the Federal Energy Regulatory Commission's (FERC's) objection to the shutdown notice and a determination that the units remain needed for reliability. The Applicant has no reason to believe that CCPP Units 6-7 will be required beyond the term of the PPA and fully expects the units to shut down at midnight April 30, 2013. The Applicant is not aware of any local, state or federal approvals required for the shutdown of the CCPP, although prior notice to the CPUC is required as noted above. The language in the second condition of the CCPP shutdown amendment is a standard provision to ensure that any and all necessary approvals are accounted for, but it does not imply that any governmental approvals are actually required for the CCPP to be shut down.

## **Comment (LCEA-15):**

As the District is painfully aware, the history of aging facility closures would counsel against reliance on any condition that requires approval of various local state and government agencies. Shuttering old power plants can be a long process. The two parties to this closure agreement (Mirant and PG&E) have a long and checkered history related to closing aging power plants.

# **Response:**

See Response to Comment LCEA-14 above. The comment is incorrect that the shutdown of the CCPP "requires approval of various local state and government agencies." Regarding the rest of the comment, the Applicant notes that the circumstances of shutting down generation facilities vary on a case-by-case basis and should not be considered predictive of how other unit retirements may occur, including that of the CCPP.

## **Comment (LCEA-16):**

For example, PG&E first announced the closure of the Hunters Point Power Plant in July of 1998. The plant didn't shut down till eight years later in 2006.

## **Response:**

The comment is not relevant to the PDOC for the MLGS.

#### **Comment (LCEA-17):**

The Mirant Potrero Power Plant signed a term sheet with the City of San Francisco in November of 2007 to close the plant and it is still running.

#### **Response:**

The comment is not relevant to the MLGS PDOC. The term sheet the comment refers to was superseded by a Settlement Agreement dated as of August 13, 2009, between Mirant Potrero, LLC and the City of San Francisco. A copy of the Settlement Agreement is available on the San Francisco City Attorney's web site at http://www.sfcityattorney.org/. The Settlement Agreement provides that Mirant Potrero, LLC will shut down and permanently retire the Potrero Power Plant as soon as it is no longer needed for electric reliability. Both Mirant Potrero, LLC and the City of San Francisco assume that the CAISO will release the Potrero units from electric reliability by December 31, 2010. It is worth noting that both the Tolling Agreement for the CCPP currently pending before the CPUC, and the shutdown amendment Mirant Delta recently submitted to the Air District consistent with the PDOC, provide for the shutdown of the CCPP on a date certain (April 30, 2013); whereas, the Potrero Settlement Agreement more generally provides that the Potrero Power Plant will shut down when it is no longer needed for reliability.

## **Comment (LCEA-18):**

It was recently announced that troubles with the Trans-Bay Cable have further delayed its closure. The Trans-Bay cable itself may delay the closing of the CCPP since power for the cable must come from the Antioch/Pittsburg area.

## **Response:**

The Trans Bay Cable has been identified as a transmission resource that must be operational for Potrero Power Plant Unit 3 to be released from reliability requirements by the CAISO. Mirant Potrero, LLC, an affiliate of the Applicant, anticipates that Potrero Unit 3 will be released from reliability by December 31, 2010. The Applicant is not involved in the operation of the Trans Bay Cable and is not in a position to comment on its performance. There is no factual basis for the comment that the Trans Bay Cable will delay the closing of the CCPP. The Applicant's understanding is that the Trans Bay Cable will connect to the electric transmission system at PG&E's Pittsburg Substation, from which it will transmit electricity to San Francisco from not only the greater Bay Area but from throughout California, as well.

## **Comment (LCEA-19):**

Back in May of 2006, Mirant filed a 90 day notice with the PUC and CAISO to shut down Contra Costa Unit 6. Mirant sought to shut down Unit 6 because its continued operation was "not economical." In a press release issued in August of 2006, Mirant announced that it had negotiated with PG&E to keep Unit 6 operating, thus withdrawing its notice of intent to shut down Unit 6.

#### **Response:**

The comment accurately states that Mirant Delta, LLC filed a notice of intent to shut down Contra Costa Unit 6 in August 2006 and that Mirant Delta and PG&E subsequently reached an agreement providing for the unit's continued operation. That event has no bearing on either the Tolling Agreement for CCPP Units 6-7 currently pending before CPUC or the obligation for Mirant Delta to shut down the CCPP at midnight April 30, 2013.

# **Comment (LCEA-20):**

PG&E's 2006 Long Term Procurement Plan shows that the Contra Costa Unit 6 isn't needed for reliability in 2006 and beyond, but the project is still operating. PG&E's 2006 Procurement Plan also says that the Contra Costa Unit 7 would no longer be needed after the Gateway Project (Contra Costa 8) became operational. Gateway became operational in January of 2009 but both Units still operate.

#### **Response:**

The comment cites PG&E's 2006 Long-Term Procurement Plan (LTPP) as support for the argument that the CCPP retirement date is likely to be extended beyond April 30, 2013. The commenter misunderstands PG&E's 2006 LTPP and ignores the significance of Mirant Delta's commitment to retire CCPP. PG&E's 2006 LTPP states that it reflects an "assumption" about

the retirement of aging plants and presents "PG&E's view" regarding how long various aging plants will continue to be needed for local reliability purposes. As PG&E and the CPUC have recognized, however, the owners of the aging plants will decide when to retire their plants. Retirements cannot be unilaterally required by PG&E, the CPUC, or the CAISO. In this context it is important to recognize that Mirant Delta has made a contractual commitment to PG&E, as reflected in the tolling agreement executed on September 2, 2009, to retire the remaining units at the CCPP at the end of the day on April 30, 2013. Mirant Delta has also requested an amendment to the CCPP air permit to enforce the same commitment. Once the CPUC gives final approval for the tolling agreement, Mirant Delta will be obligated under its contract with PG&E and as a condition of its air permit to retire CCPP at the end of the day on April 30, 2013, unless a governmental authority such as FERC or the CAISO steps in and specifies that the units cannot be shut down. With regard to that potential contingency, PG&E's 2006 LTPP indicates that the CCPP is likely to retire as scheduled because it shows that PG&E has determined that the CCPP units are not needed for reliability purposes in 2013. PG&E's determination is also implicit in the terms of the tolling agreement requiring the retirement. Assuming that the CAISO agrees with PG&E's assessment, Mirant Delta will shut down and permanently retire the CCPP units as of midnight on April 30, 2013.

#### **Comment (LCEA-21):**

In summary, Mirant's proposed condition for the PDOC does not contain a clause which prevents simultaneous operation of MLGS and the CCPP if the multiple contingencies do not occur.

#### **Response:**

The Applicant does not dispute that there is no "clause" in the CCPP shutdown amendment that prevents simultaneous operation of MLGS and the CCPP. However, if the two conditions set forth in the CCPP shutdown amendment are satisfied, Mirant Delta, LLC will have an enforceable obligation to shut down the CCPP at midnight April 30, 2013. The Applicant assumes that the CCPP will shut down prior to commercial operation of the MLGS, consistent with the pending CCPP Tolling Agreement and with the CCPP shutdown amendment. For the CCPP units to continue operating after their specified retirement date, the CAISO would need to determine that one or both of the CCPP units are needed for reliability beyond April 30, 2013. Adding 760 megawatts (MW) of new capacity through construction of the MLGS makes it unlikely that the existing CCPP units will continue to be needed for reliability purposes after MLGS commences commercial operation. However, the conclusions in the PDOC, and specifically those in Section 7.1 regarding the PSD Program, are not dependent on shutdown of the CCPP concurrent with the start-up of the MLGS, even though their simultaneous operation is extremely unlikely as a practical matter. As discussed above, and as addressed extensively in the Applicant's November 2009 White Paper cited in Section 7.1 of the PDOC, U.S. EPA guidance has addressed numerous situations where adjacent operating facilities situated similarly to the CCPP and the MLGS were appropriately considered separate facilities for PSD purposes.

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<sup>&</sup>lt;sup>1</sup> The tolling agreement reflects assumptions that are much more current than the assumptions reflected in PG&E's 2006 LTPP, which assumed that all of the new projects solicited in PG&E's 2004 long-term Request for Offers would commence operation as scheduled. In reality, approximately 300 MW of that capacity was cancelled, and the Russell City Energy Center project has been substantially delayed.

## **Comment (LCEA-22):**

Mirant's claims that the two facilities have no common infrastructure, personnel, or contractual agreements are contradicted by the following evidence:

- Common Water Supplies and Pumps: On pages 2-18 and 2-19 of the AFC it provides that the existing CCPP fire pumps will be used to discharge to the new MLGS dedicated extension of the existing underground firewater loop system. The MLGS is not anticipated to result in non emergency increase in the use of the CCPP fire pumps. There is no new fire pump.
- Common Stormwater Runoff: Stormwater runoff from the CCPP site southwest of the MLSG currently contains three aboveground storage tanks surrounded by berms. Stormwater runoff that collects within the berms can be diverted to the existing CCPP oil-water separator for treatment prior to discharge to the San Joaquin River via the existing CCPP Outfall 001.
- Common Connection to the Grid: The interconnection request submitted by Mirant to the Cal-ISO outlines Mirant's plans to use the existing interconnection of the CCPP and request only interconnection of an additional 100 MW. Therefore they will share common transmission facilities.
- Common Management and Operational Personnel: As the applicants attorney has represented to the District, "The Marsh Landing Generating Facility will have its own separate new control room and, to the extent possible, management and operating personnel independent and separate from the management and operation of the existing Contra Costa Generating Facility.
- Commonly Used Property: The MLGS parcel is to be created out of a 23 acre division of Mirant's existing parcel and yet during construction, approximately 41 acres associated with the MLGS project would be disturbed for the proposed project lay down, temporary parking, and the proposed MLGS site.
- Common Contracts: Finally both the CCPP and the MLGS are undergoing a contract approval evaluation in one proceeding, and the contracts are apparently dependent on one another.

## **Response:**

The accuracy of the commenter's factual assertions is addressed below. To the extent that some of the factual assertions in the comment are accurate, the Applicant does not dispute that there will be certain minor facilities and ancillary equipment shared between the CCPP and the MLGS. However, even where accurate, none of these assertions represent new information that was not considered in the preparation of the PDOC, nor do they alter the conclusions reached in the PDOC. All of these points are consistent with, and were explicitly addressed and acknowledged in, the discussion regarding the federal PSD Program in Section 7 of the PDOC and the Applicant's White Paper, which was provided to the District and the U.S. EPA and

referenced in the PDOC (see PDOC footnote 39). As discussed in the Response to Comment LCEA-7, the fundamental question with regard to determining that CCPP and MLGS are separate sources is whether they are subject to common control. The assertions made in this comment that are factually accurate do not relate to the core electricity generating function of the facilities, but rather to ancillary activities. Hence, these assertions do not change the analysis.

The specific factual assertions in the comment are addressed below.

Two of the assertions in the comment, regarding "Common Connection to the Grid" and "Common Contracts," are factually incorrect. The comment inaccurately states that the "interconnection request submitted by Mirant to the Cal-ISO outlines Mirant's plans to use the existing interconnection of the CCPP and request only interconnection of an additional 100 MW. Therefore they will share common transmission facilities." The MLGS will, in fact, have its own connection to the electric transmission system; the interconnection request submitted by the Applicant to the CAISO and cited in the comment was for a new connection (see AFC Amendment page 2-2 and Revised Figure 4-1 [URS, 2009]; Applicant White Paper [Farabee, 2009], PDOC footnote 39; and Revised LGIP Interconnection Request [Mirant Marsh Landing, LLC, 2009]). There is no shared transmission facility between the MLGS and the CCPP. As noted in the PDOC, the interconnection request "assumes that the [CCPP] will retire, and therefore evaluates only the net increase in capacity associated with Marsh Landing. This effectively means that the Marsh Landing facility will take over transmission capacity on the system that is currently utilized by the [CCPP]" (see PDOC, p. 62). The capacity of the transmission system is an issue entirely distinct from each plant's physical interconnection to the transmission grid, and there will be no shared or common transmission facilities between the CCPP and the MLGS.

The comment also inaccurately asserts that "both the CCPP and the MLGS are undergoing a contract approval evaluation in one proceeding, and the contracts are apparently dependent on one another." The comment is correct that each of the PPAs for the CCPP and MLGS are pending regulatory approval before the CPUC in the same proceeding, but the contracts are in fact completely independent of one another, and there is no factual or legal basis for the comment's assertion.

With respect to the fire pump, the comment is correct that the MLGS will add a new firewater loop for MLGS fire protection service that will tie in to the existing CCPP firewater loop, and will use the existing firewater pump at the San Joaquin River (see AFC 08- AFC-03, pp. 2-18-19; Figure 2.5-9 [URS, 2008]).

The comment regarding stormwater describes existing CCPP stormwater infrastructure that is outside the MLGS site and will remain unaffected by the MLGS, but the Applicant does not dispute that the MLGS will use the existing CCPP Outfall 001 to discharge stormwater (see Responses to Data Request Set 3 (Nos. 70 through 98) and Responses to Data Request Set 3 (Nos. 82 and 83) (URS, 2010a and 2010b). Note, however, that all other process and sanitary wastewater discharges from the MLGS will be discharged via an independent connection to the City of Antioch sewer main that ultimately discharges to Delta Diablo Sanitary District. Also, the MLGS will have its own water supply source that is entirely distinct from the existing CCPP.

The comment is also correct that there will be some common executive management personnel between the CCPP and MLGS, but there will be no common plant management or operating personnel. This is not new information that was not already reflected in the White Paper or the PDOC. See the Response to Comment LCEA-8 above.

Finally, the comment correctly notes that the MLGS will use portions of the existing CCPP site for temporary construction laydown and parking. This use will conclude when MLGS begins commercial operation, and has no bearing on the operation of CCPP or MLGS.

To the extent there are any shared facilities (such as the stormwater outfall) or the MLGS uses existing CCPP infrastructure or equipment (such as the firewater system), there will be armslength agreements between Mirant Marsh Landing, LLC and Mirant Delta, LLC providing for such shared facilities or equipment. Similar agreements are in place between Mirant Delta, LLC and PG&E for PG&E's switchyard facility at the CCPP site and for PG&E's Gateway Generating Station (Gateway). For example, stormwater collected within the PG&E switchyard is directed to a catch basin on the CCPP site and from there to the CCPP's oil/water separator (see Mirant Delta, LLC Notice of Intent to Comply with General Statewide Industrial Stormwater Permit for the Contra Costa Power Plant, Figure 2 [attached as Attachment 1]; and AFC at Figure 7.14-3 [URS, 2008]). Similarly, one of Mirant Delta's CCPP stormwater outfalls discharges to Gateway's stormwater outfall (URS, 2008). Additionally, Mirant Delta, LLC and PG&E share security services, such as a common entry gate and guard station. PG&E also used portions of the existing CCPP site as a construction laydown and parking area for the Gateway Generating Station, just as the MLGS proposes to do (see 00-AFC-1, Final Commission Decision for Contra Costa Unit 8 Power Project, Figure 1 [available at http://www.energy.ca. gov/sitingcases/gateway/documents/2001-05-30 CONTRACOSTA.PDF]). Thus, it is not unusual for neighboring facilities to share stormwater or similar services, and such shared facilities do not render the two facilities a "single facility."

## Comment LCEA (23):

In summary the two projects utilize some of the same infrastructure, management and operating personnel, and are interrelated contractually. The facilities will not have separate water supplies, separate fire pumps, their own independent connections to the electric transmission system, separate wastewater discharge connection, or separate contracts regarding the sale of power output."

#### **Response:**

The table below responds to each of these summary points in turn, all of which were addressed in more detail above:

Comment	Response
"some of the same infrastructure"	The Applicant does not dispute that there will be certain shared infrastructure, such as a firewater protection system and stormwater outfall, but these shared facilities do not cause the MLGS and CCPP to be a single facility, as explained above.
"some of the same management and operating personnel"	The Applicant does not dispute that the two facilities will have some of the same executive management personnel, but there will be no shared plant management or operating personnel.
"are interrelated contractually":	There is no connection or interdependence between the PPA between Mirant Delta, LLC and PG&E for the CCPP and the PPA between Mirant Marsh Landing, LLC and PG&E for the MLGS. There will be arms-length agreements between Mirant Delta and Mirant Marsh Landing for easements and any shared facilities such as the stormwater outfall.
"the facilities will not have separate water supplies"	This assertion is inaccurate and greatly exaggerates the earlier comment (Comment LCEA-22) that there will be a connection between the firewater system for the MLGS and the existing firewater system at the CCPP. The MLGS will have its own, entirely independent process and potable water supplies.
"the facilities will not have separate fire pumps"	Mirant does not dispute that the MLGS will add a new firewater loop that will connect to the existing CCPP firewater loop and will use the existing fire pump. This shared use of fire service equipment does not cause MLGS and CCPP to be a single facility, as explained above.
"the facilities will not have their own independent connections to the electric transmission system"	This statement is completely inaccurate. The MLGS will have its own independent connection to the transmission system.
"the facilities will not have separate wastewater discharge connection"	This statement is inaccurate and greatly exaggerates the earlier comment that the MLGS will use the CCPP's Outfall 001 for the discharge of stormwater. The MLGS will otherwise have entirely independent and separate wastewater discharges.
"the facilities will not have separate contracts regarding the sale of power output"	This assertion is completely inaccurate. The PPA between Mirant Delta, LLC and PG&E for the CCPP and the PPA between Mirant Marsh Landing, LLC and PG&E for the MLGS are entirely separate and independent.

## **Comment (LCEA-24):**

The EPA Administrator has signed a final rule designating the San Francisco Bay Area as non-attainment for the PM-2.5 24-hour standard. Under EPA policy, since the District did not have a SIP-approved permitting program for PM-2.5 when the non-attainment designation became effective, 40 C.F.R. Part 51, Appendix S will govern permitting for major sources of PM-2.5 until a SIP-approved permit program is in place.

Under Appendix S, the analysis is essentially the same as under the PSD rules, except that each non-attainment pollutant is evaluated independently: MLGS will be a major modification to an existing major source. Since the CCPP and MLGS constitute a single facility under PSD rules, the 100 t/yr non-attainment area major stationary source threshold is applied collectively to the facilities. Because the combined emissions of PM-2.5 will be over the 100 t/yr threshold, an Appendix S evaluation is required.

# **Response:**

The comment accurately describes the rules designating the San Francisco Bay Area as "non-attainment" for the National Ambient Air Quality Standard for particulate matter less than or equal to 2.5 microns in diameter ( $PM_{2.5}$ ) (24-hour average). This issue was fully discussed in Section 7.2 of the PDOC. As the PDOC discusses and concludes, the MLGS will be a minor source, so the Appendix S Non-Attainment New Source Review requirements do not apply. As discussed in Section 7.1 of the PDOC, the Applicant's White Paper, and in Responses to Comments LCEA-2 through 23 above, the MLGS is a minor source and is not a modification to an existing facility. The CCPP and MLGS do not constitute a single facility.

## **Comment (LCEA-25):**

The PDOC fails to meet the requirement of meeting the best available emission standards for comparable technology. There are three areas where inferior standards are applied:

- Ammonia Emissions
- PM-10 Emissions
- Commissioning Standards

The following sections describe the failure in each of these areas.

#### **Response:**

The PDOC reflects an extremely thorough analysis by the Air District and proposes extensive, stringent conditions, including Best Available Control Technology (BACT) requirements, to ensure that the MLGS complies with all applicable air quality laws and regulations. With respect to the specific allegedly inferior standards, the individual assertions are addressed below.

# Comment (LCEA-26):

The District has proposed the use of SCR to control NOx emissions, but is allowing a 10 ppm limit for ammonia slip. Some ammonia slip is unavoidable with SCR due to the non-uniform

distribution of the reacting gases. Thus, some ammonia will pass through the catalyst. In the past, ammonia slip was not considered to be a problem by regulatory agencies because they felt that by releasing it from an elevated stack, the ground level concentration would be low. However, it has never appeared to be good environmental policy to allow ammonia to be released to the atmosphere in place of NOx, and ammonia emissions are now of concern because of PM–2.5 considerations.

The District performed an analysis on secondary particulate formation from precursor emissions which they cite in the PDOC. Despite the results of this modeling report to the contrary, the District still stubbornly clings to its past determinations that secondary particulate formation from ammonia emissions is not significant.

The recent draft study performed by the District draws an entirely different conclusion. The Draft PM-2.5 study concluded, "Reducing ammonia emissions by 20 percent (around 15 tons/day) was the most effective of the precursor emissions reductions. Secondary PM-2.5 levels were typically reduced 0-4 percent, depending on location, with an average around 2 percent. Reducing NOx and VOC emissions by 20 percent (around 250 tons/day total) was relatively ineffective. Reducing sulfur containing PM precursor emissions by 20 percent (around 16 tons/day) typically had a small impact on Bay Area PM-2.5."

## **Response:**

The comments regarding the regulation of ammonia slip are noted. The comment accurately quotes the Air District's October 1, 2009 Draft Report entitled "Fine Particulate Matter Data Analysis and Modeling in the Bay Area" (Draft PM<sub>2.5</sub> Modeling Report). Issues related to ammonia slip and secondary particulate formation from ammonia emissions were thoroughly analyzed in the PDOC (see pp. 26-27), and the Draft PM2.5 Modeling Report referenced in the comment was also discussed extensively. The comment does not raise any issues that were not already addressed in the PDOC.

# **Comment (LCEA-27):**

Given that ammonia emissions are the largest precursor contributor of secondary PM-2.5, the District should require a lower ammonia slip level and provide mitigation for ammonia slip secondary particulate impacts. Limiting ammonia emissions to a lower slip level is feasible and has already been achieved in practice.

## **Response:**

In the PDOC for the MLGS, the BAAQMD imposed a requirement that ammonia emission concentrations at each exhaust point (i.e., ammonia slip) not exceed 10 parts per million by volume (ppmv), on a dry basis, corrected to 15 percent oxygen, averaged over any rolling 3-hour period. This requirement reflects the ammonia slip limit that the project will be able to achieve and is supported by contractor and vendor guarantees for this technology. The requirement also is incorporated into the California Energy Commission's (CEC's) Staff Assessment as BAAQMD's proposed Condition of Certification AQ-17(e).

The Applicant notes that in addition to incorporating BAAQMD's ammonia slip limit, CEC Staff proposed an additional Condition of Certification in its Staff Assessment specifying that the selective catalytic reduction (SCR) system catalyst shall be replaced, repaired, or otherwise reconditioned within 12 months if the ammonia slip exceeds 5 parts per million by volume per day (ppmvd) at 15 percent oxygen over a 24-hour rolling average (see CEC Staff's proposed Condition of Certification AQ-SC 9). CEC Staff states that this additional condition is intended to limit the project's ammonia slip emissions "to the extent feasible," and references ammonia slip limits described in a 1999 California Air Resources Board (CARB) document and imposed as a condition for the Orange Grove Energy Project (08-AFC-04, Final Commission Decision, April 2009). (See Staff Assessment, page 4.1-27.)

To the Applicant's knowledge, an ammonia slip limit of 5 ppmvd has not been demonstrated for frame-type turbines operating in simple cycle like those to be used at the MLGS. The 1999 CARB documents cited in the Staff Assessment contain vendor claims that applied to combined cycle facilities. Those claims were not accompanied by any evidence that the 5 ppmvd limit has been achieved for frame-type turbines operating in simple cycle, or by enforceable guarantees for any specific project. The Applicant has confirmed that the vendor letters regarding ammonia slip that were included in the 1999 CARB report were written with respect to combined-cycle applications (see letter dated May 4, 2010 from Peerless Mfg. Co., included as Attachment 2). The ammonia slip limit imposed on the Orange Grove Energy Project cited in the Staff Assessment also is not applicable to MLGS because it was imposed for aero-derivative turbines. Technical differences between these two technologies, particularly their relative exhaust temperatures and exhaust flow volumes, create different challenges for reducing ammonia slip limits while simultaneously meeting very stringent limits on emissions of nitrogen oxides (NO<sub>X</sub>).

The PDOC concluded that ammonia emissions from MLGS would be significantly below the health risk factors based on an ammonia slip of 10 ppmvd. The ammonia emissions used by the District in its assessment of the increased health risk to the public resulting from the project assumed a worst-case ammonia emission concentration of 10 ppmvd at 15 percent oxygen from the simple-cycle gas turbines SCR systems. The results of the health risk assessment presented in the PDOC found a maximum increased cancer risk of 0.03 in one million for the maximally exposed individual near the facility, which is considered less than significant because it is less than the 1.0 in one million significance threshold. The highest chronic non-cancer hazard index for the project is 0.003 and the highest acute non-cancer hazard index for the project is 0.3. These non-cancer risks also are less than significant because they are less than 1.0.

Even if a 5 ppmvd limit were achievable, there would be associated capital and operational costs to reduce the ammonia slip from 10 ppmvd as well as substantial (and at this time unquantified) additional vendor costs to provide the necessary system guarantees to achieve a lower limit. Capital costs are primarily associated with upgrading the catalyst and the ammonia distribution system. For operational costs, reducing the amount of allowable slip would require a larger volume of catalyst and more frequent catalyst replacement. Based on discussions with vendors, the MLGS would likely require one or two additional catalyst changes over the life of the project (i.e., from approximately six catalyst replacements to seven or eight changes over 30 years of operation). The lower ammonia slip level would likely reduce the volume of ammonia required each year by an estimated \$20,000. The total estimated incremental capital and operational cost of the 5 ppmvd ammonia slip limit proposed by CEC Staff as opposed to the 10 ppmvd ammonia

slip limit would be on the order of \$40,000 to \$95,000 per ton of ammonia reduction (net present value at a discount rate of 10 percent and assuming a 30-year project life). As discussed further below, there also would be substantial additional and as yet unquantified guarantee/risk dollars to the EPC contractor and selected SCR vendor (see letter from Kiewit attached as Attachment 3). Ammonia is not regulated as a criteria pollutant subject to the same BACT requirements that criteria pollutants such as NO<sub>X</sub> and carbon monoxide are, and therefore there are no established standard cost effectiveness thresholds for reduction of ammonia emissions as there are for criteria pollutants. For order-of-magnitude comparison purposes, the BACT cost effectiveness threshold for NO<sub>X</sub> is \$24,000 per ton (see PDOC, Footnote 23). The estimated costs for reducing ammonia slip emissions for the MLGS would be substantially greater than the thresholds for any of the criteria pollutants. From a cost perspective alone, this demonstrates that achieving a lower ammonia slip limit is neither feasible nor justified.

This additional \$40,000 to \$95,000 per ton cost does not capture the incremental risk and associated risk premium costs that the project would incur to attempt to meet the 5ppmvd ammonia slip limit proposed by CEC Staff. The EPC contractor and its SCR vendors are not currently able to guarantee that the facility will meet the proposed 5ppmvd limit. Any such guarantee (which is not available at this time) would necessitate a substantial (and currently unquantified) price increase to the current EPC contract. That price increase would further increase the \$/ton number above, likely by a very substantial amount.

Costs aside, because a guarantee is not available at this time, imposing a limit of 5 ppmvd would significantly impair project viability. If the project cannot obtain a sufficient guarantee for the limit from its EPC contractor, then imposing the limit in a permit condition would dramatically impair, and likely preclude, project financing, which would terminate the project. Even if the project could survive with this limit, it is important to note that the additional required catalyst to support a 5ppmv ammonia slip limit would increase unit back pressure, which would decrease the output and increase the unit heat rate. This would directly increase greenhouse gas emissions by the units and decrease the available energy to serve load. These additional impacts do not justify the marginal benefit associated with the reduction of ammonia slip.

For these reasons, the Applicant disagrees that the District should require a lower ammonia slip limit.

#### **Comment (LCEA-28):**

The use of ammonia in the SCR chemical process for NOx control presents an additional problem. Ammonia is on EPA's list of Extremely Hazardous Substances under Title III, Section 302 of the Superfund Amendments and Reauthorization Act of 1986 (SARA). The project area is located where a large number of existing and proposed facilities are utilizing ammonia. Ammonia is being routinely transported through the minority low-income neighborhoods. Under environmental justice requirements (see Section IV) the district must provide a cumulative ammonia transportation analysis and provide the appropriate mitigation.

See Responses to Comments LCEA Comment 33 below. In addition, CEC Staff have proposed several Conditions of Certification for the project related to the use, storage and transport of ammonia to the facility including:

- HAZ-3: The project owner shall develop and implement a Safety Management Plan for delivery of aqueous ammonia and other liquid hazardous materials by tanker truck. The plan shall include procedures, protective equipment requirements, training, and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of incompatible hazardous materials including provisions to maintain lockout control by a power plant employee not involved in the delivery or transfer operation. This plan shall be applicable during construction, commissioning, and operation of the power plant;
- HAZ-5: The project owner shall direct all vendors delivering aqueous ammonia to the site to use only tanker truck transport vehicles which meet or exceed the specifications of DOT Code MC-307; and
- HAZ-6: The project owner shall direct all vendors delivering any hazardous material to the site to use only the route approved by the CPM (SR-4 to SR-160 to Wilbur Avenue to the project site). The project owner shall obtain approval of the CPM if an alternate route is desired.

All of these conditions are acceptable to the Applicant and will ensure that any potential impacts associated with the transport of ammonia are mitigated to a less-than-significant level.

#### **Comment (LCEA-29):**

The District is proposing a BACT PM-10 emissions limit of 9.0 lb/hr, which corresponds to an emission rate of 0.0041 lb/MMBtu of natural gas burned. The manufacturer guarantees an 8 lb/hr limit for the Siemens 5000F turbines. The District provides results of source tests for similar turbines which have a CO catalyst and SCR. The average PM-10 emission rate is .0026 lb/MMBtu. This is 37% below the proposed permit level for the MLGS.

BAAQMD Regulation 2-2-206 (b) requires as BACT, "The most stringent emission limitation achieved by an emission control device or technique for the type of equipment comprising such a source." The evidence presented demonstrates that the MLGS can achieve a much lower emission rate than the District is proposing.

The District's rationale appears to be that the dilution air that is added to the exhaust might contain a certain quantity of entrained PM, and this PM is ultimately emitted in the exhaust at the outlet of the abatement equipment. Mirant estimates that up to 1.3 lb/hr of PM-10 could be added form the dilution air. By requiring an air inlet filter to lower particulate emissions, the District could mitigate this source of PM-10, and thereby require a standard for emissions that corresponds to more stringent limitations.

The comment restates points that were included and thoroughly analyzed in the PDOC (see PDOC, pp. 40-45). The Siemens guarantee of 8 lb/hour is for emissions at the turbine outlet and does not account for any additional PM10 formation that may occur due to oxidation of sulfur dioxide in the exhaust stream by the CO catalyst and subsequent reactions with ammonia slip to create ammonium sulfate and other salts downstream of the turbine outlet. As stated in the PDOC PM BACT discussion, the proposed emission limit of 0.0041 lb/MMBtu is more stringent than the PM emission limitation achieved in practice by any other similar (i.e., large) natural gas fired simple-cycle combustion turbine source. The comment suggesting that similar turbines have achieved lower emission rates is erroneous. Table 10 of the PDOC shows the lb/MMBtu emission rates for other recently permitted large turbines, all of which have emission rates higher than that proposed for the MLGS units. Only combined cycle units or simple cycle turbines that are much smaller than the 5000 F units and with lower turbine exhaust temperatures and catalysts designed to achieve less stringent CO BACT levels have posted PM10 source test results below 0.0041 lb/MMBtu. Regarding the LM6000 source tests cited in the comment, the comment disregards the fact that 8 of the 42 LM6000 sources actually exceeded 0.0041 pounds per MMBtu, as discussed in the PDOC (ibid). Notably, the PDOC concluded that the proposed emissions limit of 9.0 pounds per hour "would be more stringent than any other PM emissions limitation achieved in practice by any other similar natural gas fired simple-cycle combustion turbine source" (see PDOC, p. 40).

With respect to the comment regarding an air inlet filter, the MLGS gas turbines will employ air inlet filters. Note that the potential contribution of particulate loading in the dilution air is lower than that potentially caused by the formation of ammonium sulfate salts due to oxidation of sulfur dioxide of the exhaust gas in the CO catalyst and the subsequent reactions of the oxidation products with ammonia slip. It would not be feasible for the dilution air fans to employ inlet air filters due to the large volume of air they inject, and even if it were feasible, additional filters on the intake for dilution air would not appreciably lower the stack particulate emissions.

## **Comment (LCEA-30):**

The District's emission limits during commissioning are not adequate to prevent the project from violating the Federal 1 hour standard.

In the commissioning phase with all four turbines operating the project's maximum NO2 impact is  $170.02~\mu g/m3$ . The background is  $122.1~\mu g/m3$ . Thus, the combination of the four turbines in commissioning mode combined with background concentrations equals  $292~\mu g/m3$ , which violates the new Federal NO2 standard of  $191~\mu g/m3$ .

The District states that the only control technology available for limiting emissions during commissioning is to use best work practices to minimize emissions as much as possible during commissioning, and to expedite the commissioning process so that compliance with the stringent BACT limits for normal operations can be achieved as quickly as possible. But the District has another option, which is to limit the project so that only two turbines can be operated in commissioning mode at one time to prevent a violation of the federal 1 hour NO2 standard.

The comment accurately cites the data provided in the Applicant's responses to CEC data requests for the MLGS. As the commenter suggests, the Applicant has accepted as a condition of CEC project certification a requirement that only two turbines may be commissioned at a time (see CEC, Marsh Landing Generating Station Staff Assessment, proposed Condition of Certification AQ-SC10 [available at http://www.energy.ca.gov/sitingcases/marshlanding/documents/index.html]).

# **Comment (LCEA-31):**

However, a larger issue is that the District fails to provide any analysis of the MLGS operating in commissioning mode simultaneous with the operation of CCPP Units 6 & 7. The District has failed to analyze the impact of both projects operation during commissioning, a condition that would likely lead to violation of the Federal NO2 standard of 191  $\mu$ g/m3.

## **Response:**

The analysis provided by the Applicant in the Responses to Data Request Set 3 (Nos. 70 through 98) (URS, 2010a), and cited by the comment, did in fact conservatively take into account the operations of the CCPP, during the MLGS operation period, notwithstanding Mirant Delta, LLC's agreement to shut down the CCPP at midnight April 30, 2013. Similarly, the analysis for MLGS emissions during the commissioning period also took into account emissions associated with operations of the CCPP, which are reflected in background values (see also Response to Comment LCEA-30 above).

#### Comment (LCEA-32):

As discussed earlier, the PDOC does not contain any legally binding commitment to shut down the CCPP before operations begin at MLGS, and therefore no condition to prevent them operating at the same time.

#### **Response:**

See Responses to Comments LCEA-9 through 21.

#### **Comment (LCEA-33):**

Section IV of the LCEA Comment Letter asserts that the "PDOC Fails to Comply with Environmental Justice Requirements." We do not reproduce the entire comment here, but our response is intended to address all of the issues raised therein.

## **Response:**

The District's Rules do not require an Environmental Justice analysis of any kind, and the District is not subject to Executive Order 12898 or Government Code Section 65040.12. Nevertheless, the District conducted an Environmental Justice Analysis contained in Section 9.5 of the PDOC, which concluded that:

The emissions from the proposed project will not cause or contribute to any significant public health impacts in the community. As described in detail above, the District has undertaken a detailed review of the potential public health impacts of the emissions authorized under the proposed permitting action, and has found that they will involve no significant public health risks....The District does not anticipate an adverse impact on any community due to air emissions from the Marsh Landing and therefore there is no disparate adverse impact on any Environmental Justice community located near the facility.

In addition, the CEC conducted a thorough Environmental Justice analysis, as documented in the Staff Assessment (CEC, 2010) and the Applicant's Application for Certification, Sections 7.6 and 7.8 (URS, 2008) and Application of Certification Amendment, Section 3.6 (URS, 2009).

#### The CEC Staff Assessment states that:

In light of the progress made by federal environmental agencies on environmental justice, the Energy Commission has examined federal guidelines pursuant to its desire to follow environmental justice principles for the environmental review of this project. The steps recommended by the U.S. EPA's guidance documents to assure compliance with Executive Order 12898 regarding environmental justice are: (1) outreach and involvement; (2) a screening-level analysis to determine the existence of a minority or low-income population; and (3) if warranted, a detailed examination of the distribution of impacts on segments of the population.

Staff conducted the screening analysis in accordance with the Final Guidance for Incorporating Environmental Justice Concerns in U.S. EPA's National Environmental Protection Act Compliance Analysis (Guidance Document) dated April 1998. People of color populations, as defined by this Guidance Document, are identified where either:

- the minority population of the affected area is greater than 50 percent of the affected area's general population; or
- the minority population percentage of the area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

Socioeconomics Figure 1 (located in the Socioeconomics section of [the Staff Assessment]) shows a total minority population of 43.01 percent within a six-mile radius of the MLGS site. Several census blocks with a minority population of greater than 50 percent exist within the six-mile boundary. Despite a total minority population less than the 50 percent threshold, staff's environmental justice outreach was nonetheless incorporated into its overall analysis and outreach activity facilitated by the Energy Commission's Siting Office and Public Adviser's Office.

Both the CEC's Staff Assessment and the PDOC include detailed analyses of direct, indirect and cumulative impacts of criteria pollutants and pollutants that could be characterized as potential human carcinogens, or associated with other types of adverse health affects. The cumulative impacts analysis for criteria pollutants considered a wide range of existing and proposed development projects in the vicinity of the MLGS. In addition, the cumulative impact analysis for the public health analysis included both the Gateway Generating Station and existing CCPP operating emissions. The Oakley Generating Station and Willow Pass Generating Station were proposed after the MLGS, and the analysis of those projects will need to consider the emissions proposed by MLGS.

Both the District's and CEC Staff's analyses determined that the project's direct, indirect and cumulative impacts would be well below the significance criteria for pollutants that could cause public health risks, as follows:

- Cancer Risk MLGS risk would be 0.03 in one million; the threshold of significance is 1.0 in one million.
- Chronic Non-Cancer Hazard Index MLGS risk would be 0.003; the threshold is 1.0
- Acute Non-Cancer Hazard Index MLGS risk would be 0.3; the threshold is 1.0.

Therefore, because there is no significant minority population in the project area that could be disproportionately affected and project impacts would be well below significance thresholds for public health impacts, the project would not result in disproportionately high adverse affects on environmental justice populations. These considerations have been adequately assessed by the District in the issuance of the PDOC and the CEC Staff Assessment.

#### Comment (LCEA-34):

The District comments in the PDOC that, "Climate change poses a significant risk to the Bay Area with such impacts such as rising sea levels, reduced runoff from snow pack in the Sierra Nevada, increased air pollution, impacts to agriculture, increased energy consumption, and adverse changes to sensitive ecosystems."

#### **Response:**

Comment noted. The comment accurately quotes the PDOC. As the PDOC states, the CEC is the lead agency under CEQA for the project and the CEC Staff's Assessment of the project addresses the impact of the project's greenhouse gas emissions. CEC Staff concludes that the project's impacts would not be significant and would result in a net reduction of greenhouse gas emissions from power plants that are part of the California and Western Electric Coordinating Council system.

#### Comment (LCEA-35):

California State Health and Safety Code Section 41700 restricts emissions that would cause nuisance or injury. As the district has conceded that Climate change caused by greenhouse gas

(GHG) emissions poses a significant risk to the public, the project cannot be approved without elimination or mitigation of the GHG emissions.

## **Response:**

Health and Safety Code section 41700 specifies that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." This section is a codification of the common law of nuisance. Under the common law, one of the key elements in determining whether a emissions from a source are causing a nuisance is causation. In other words, a source violates section 41700 only if its emissions are the direct cause of a particular "injury, detriment, nuisance, or annoyance." Since climate change is the result of greenhouse gas emissions from innumerable sources around the world, it is not possible to link any specific harm to GHG emissions from MLGS, and causation cannot be demonstrated. See Responses to Comments LCEA-36 and 37 below for further discussion of how the MLGS will contribute to an overall reduction of system-wide GHG emissions. Because the MLGS will reduce GHG emissions, it will not cause or contribute to any perceived nuisance or injury associated with GHG.

## **Comment (LCEA-36):**

Nevertheless, the District fails to provide BACT emission limits or mitigation for GHG emissions, nor does it deny the project." It is incumbent upon the District to prepare an analysis and plan how it will control GHG emissions from this facility and the other two power plants it is currently permitting: the Willow Pass Generating Station and the Oakley Generating Station. According to the PDOC, the MLGS could emit as much as 741,540 metric tons per year (mt/yr) of CO2 equivalent GHG. The estimated GHG emissions from the Oakley Generating Station are 1,941,449 mt/yr. The Willow Pass Project has the potential to emit 997,438 mt/yr. The three facilities combined have the potential to emit 3,680,427 mt/yr in Contra Costa County.

# **Response:**

The PDOC correctly observes that the MLGS "is not required to address GHG emissions under the Clean Air Act at this time" (see PDOC, p. 76). The PDOC also correctly notes that MLGS GHG emissions will be addressed by the CEC under CEQA. In its Staff Assessment released April 26, 2010, CEC staff analyzes the project's GHG emissions in detail and concludes that the project will contribute to a reduction of California and overall Western Electricity Coordinating Council system GHG emissions (see Staff Assessment, pp. 4.1-63 through 4.1-81). Because MLGS reduces system wide GHG emissions, it provides an overall GHG benefit and does not cause or contribute to any nuisance or injury associated with GHG.

GHG emissions from the other facilities mentioned in the comment will also be assessed by the CEC under CEQA, and potentially under the Clean Air Act as well depending on when those facilities obtain permits. As the PDOC noted, stationary sources subject to Clean Air Act permitting will be required to address GHG emissions starting in 2011 (see PDOC, p. 76). The

comment accurately cites the projected GHG emissions for the MLGS, which were included in the PDOC (see PDOC, p. 75).

## **Comment (LCEA-37):**

The MLGS was originally proposed as two combined cycle units and two combustion turbines. The GHG emission per MW were accordingly much smaller than what is currently being proposed, yet the operating characteristics of the two configurations are very similar. The District could easily conclude that the combined cycle configuration is BACT for GHG emissions for the MLGS.

# **Response:**

The comment correctly describes the originally proposed configuration of the MLGS, and the Applicant does not dispute that GHG emissions per MW from the current simple-cycle configuration are higher than the original combined-cycle configuration. However, relative efficiency does not fully explain how a simple cycle facility like the MLGS will contribute to reducing GHG emissions on an electricity system-wide basis. The MLGS offers unique operating characteristics that are ideally suited for integrating large amounts of renewable generation such as wind and solar energy into California's energy supply. Increased reliance on renewable generation is the cornerstone of California's plan for reducing GHG emissions to the levels required by AB 32. To achieve those reductions while ensuring the reliable operation of the State's electric system, the State will require new flexible sources of electric capacity that can start up quickly and rapidly increase energy output as deliveries of intermittent renewable energy decline, and then rapidly decrease energy output as deliveries of intermittent renewable energy increase. The MLGS is ideally suited to provide these critical services. Each of the four MLGS turbines will be capable of starting up and reaching full load in approximately 12 minutes. In contrast, while state-of-the-art fast start combined cycle facilities can provide some power very quickly, they generally require at least an hour to reach their full load. More specifically, while state-of-the art combined cycle facilities can reach approximately 40 percent of full load in 10 minutes (with the remainder to follow in the next 50 minutes), the MLGS will be capable of reaching 80 percent of its full load in 10 minutes (with the remainder to follow in the next 2 minutes). Thus, MLGS provides critical services that even a state-of-the-art combined cycle facility cannot.

With this fast start and rapid ramping capability, MLGS will be able to provide approximately 600 MW of non-spinning reserves to the CAISO, which is a critical ancillary service that is needed to integrate and backup intermittent renewable generation. MLGS also will have very low minimum operating times, which means that it can be started, operated for short periods of time, and then shut down to accommodate increased renewable generation as it becomes available. This allows MLGS to be operated surgically to supply energy only when and in the increments needed. With these capabilities, the MLGS can be operated to maximize the system's use of renewable generation, which will help reduce system wide GHG emissions.

Because MLGS is designed to operate for backup and renewable integration purposes, it is intended to operate at a low annual capacity factor, which causes its total annual GHG emissions to be lower than a combined cycle facility that is designed to be a baseload or intermediate

energy resource. Due to its operating capabilities and expected use, the MLGS will have an annual capacity factor of no more than 20 percent. This means that the project's maximum annual GHG emissions will be no more than the 741,540 metric tons per year as stated in the PDOC. This is 38 percent less than the originally proposed combined cycle facility's estimated emissions as shown on AFC Table 7.1-20 (URS, 2008).

The CEC Staff's analysis for the MLGS as presented in the Staff Assessment also concludes that MLGS will help reduce GHG emissions on a system-wide basis by displacing less efficient aging power plants that currently are used to ensure local reliability. CEC Staff explained that the MLGS will be more efficient than these aging units and is likely to displace them, causing the aging units to operate less and eventually retire. CEC Staff concluded that this will contribute to an overall reduction of GHG emissions.

In addition to the efficiency benefits noted by CEC Staff, operating MLGS instead of an aging plant further reduces GHG emissions because, as explained above, MLGS has very fast start times and very low minimum operating times. Aging plants take much longer to start (typically 12 to 24 hours) and once started they typically must operate for at least 8 hours before shutting down. As a result, if an aging unit is needed to supply energy during a four hour period, it would need to operate for at least 20 hours total when start up and minimum operating times are considered. The unit obviously would have GHG emissions during that entire period. In contrast, MLGS could be used to supply energy during the same four hour period and would only need to operate for four hours, plus its ten to 12 minute start up time. Operating the MLGS in lieu of the aging units therefore will result in lower total GHG emissions to provide the same reliability service. This benefit results from the operating flexibility afforded by MLGS, not solely from its relative efficiency.

Finally, as noted in Response to Comment LCEA-36, GHG emissions are not currently subject to BACT requirements.

## **Comment (LCEA-38):**

These three Contra Costa facilities would rank high among the top ten of current GHG emitters in the District, listed below (emissions in t/yr):

- 1. 11 Shell Martinez Refinery 3485 Pacheco Blvd Martinez 94553 4,976,544
- 2. 10 Chevron Products Company 841 Chevron Way Richmond 94802 4,303,800
- 3. 14628 Tesoro Refining and Marketing Company 150 Solano Way, Avon Refinery Martinez 94553 2,804,678
- 4. 12626 Valero Refining Company California 3400 E 2nd Street Benicia 94510 2,568,988
- 5. 12095 Delta Energy Center Arcy Lane Pittsburg 94565 1,895,320
- 6. 16 ConocoPhillips San Francisco Refinery 1380 San Pablo Ave Rodeo 94572 1.577.872
- 7. 11866 Los Medanos Energy Center 750 E 3rd Street Pittsburg 94565 1,368,588
- 8. 12183 Metcalf Energy Center One Blanchard Road Coyote 95013 1,120,115
- 9. 17 Lehigh Southwest Cement Company 24001 Stevens Creek Blvd Cupertino 95014 842,475

10. 26 Mirant Potrero, LLC 1201 Illinois Street San Francisco 94107 – 462,505

# **Response:**

The source for the comment is not cited, and the comment is not relevant to the PDOC for the MLGS.

# Response to Comments Received from Robert Sarvey (RS)

#### Comment (RS-1):

After reviewing the permit I believe that the permit does not comply with several District, State and Federal regulations.

- 1. The MLGS is a major modification to an existing facility.
- 2. Marsh Landing Will Trigger Appendix S Nonattainment Permitting for PM2.5
- 3. The Districts BACT analysis is defective for ammonia slip, PM 2.5 emissions and commissioning emissions.
- 4. The District must analyze the simultaneous operation of the MLGS and the Contra Costa Power Project (CCPP).
- 5. The District failed to analyze the transport issues to the San Joaquin Valley.
- 6. BAAQMD Rule 2-2-307 Compliance at all facilities owned by Mirant

## **Response:**

See Response to Comment LCEA-1. Items 1-3 were raised in the LCEA Comment letter, as well. The Applicant disagrees that there are any deficiencies in the PDOC related to the issues raised in Items 4-6. Specific responses to all of issues raised in the comment are provided below.

#### **Comment (RS-2):**

The PDOC treats the MLGS as a separate facility from the CCPP instead of a major modification to an existing facility. The question of whether the new Marsh Landing Generating Station (MLGS) will be a "modification" to the existing Contra Costa Power Plant (CCPP) depends on whether the two power plants taken together are one single "facility" as defined by Title 40 CFR § 52.21(b)(6). If they are both part of the same "facility," then the construction of the new Marsh Landing Generating Station would be a "modification" to that "facility" and the project would be subject to PSD regulations. Title 40 CFR § 52.21(b)(6) defines a facility as:

[A]ll of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e., which have the same first two digit code) as described in the Standard Industrial Classification Manual.

The District does not dispute that the MLGS and the CCPP are located on the same property and are contiguous to one another. The District does not dispute that the MLGS and the CCPP are in the same industrial class of facilities as identified in the standard Industrial Classification Manual.

#### **Response:**

See Response to Comment LCEA-2.

## **Comment (RS-3):**

The District claims that the facilities are not under common ownership despite overwhelming evidence in the permitting record that they are both owned by Mirant America.

## **Response:**

See Response to Comment LCEA-7. The Applicant does not dispute that the MLGS and the CCPP are under ultimate common ownership.

# **Comment (RS-4):**

The District claims that "EPA has interpreted independent operations such as these not to be a single "facility" for purposes of PSD permitting under 40 C.F.R. Section 52.21. Since the federal PSD program is EPA's program and the District is required to follow EPA's guidance in interpreting the PSD regulations under Section VII.1 of the Delegation Agreement, the District is proposing to treat the proposed Marsh Landing facility as a separate facility from the existing Contra Costa Power Plant." The fact is the EPA has provided no such guidance. What the EPA has stated is, "Based on our review of the facts set forth in the Analysis, we agree that the Bay Area Air Quality Management District can reasonably exercise your discretionary permitting authority to treat the Marsh Landing Generating Station and Contra Costa Power Plant as separate sources rather than a single stationary source...... "Our evaluation of your decision is limited to the specific facts set forth in Mirant's Analysis and does not establish precedent for any other project or projects."

By examining the real facts in the permitting record, CEC documents and other publicly available documents and following previous EPA guidance on the definition of a facility the District has no discretion but to treat the MLGS as a major modification to the existing CCPP.

#### **Response:**

See Responses to Comments LCEA-4 and 5.

## **Comment (RS-5):**

The Districts conclusion that the MLGS and the CCPP are not one facility is based on two false assumptions. One is that the MLGS and CCPP have separate ownership and do not have common equipment or management. Number two the District has been led to believe that there is a binding agreement to close the CCPP before operations begin at the MLGS and that the two facilities will not operate simultaneously.

#### **Response:**

See Response to Comment LCEA-6.

## **Comment (RS-6):**

On February 27, 2008, Mirant sent a letter to the District which stated: "Considered together, the Marsh Landing Generating Facility and the existing Contra Costa Power Facility fall within the District's definition of "facility" given that...... their respective owners are under the common ownership of Mirant Americas, Inc. (notwithstanding several intervening corporate entities)." Those facts have not changed since that time. Both projects are still owned by Mirant Americas and they have not been divested.

## **Response:**

See Response to Comment LCEA-7.

## **Comment (RS-7):**

In determining whether projects are under common control the EPA is guided by the general definition of control used by the Securities and Exchange Commission. The SEC defines control in 17 CFR 240.12b-2 as "the possession, direct or indirect, of the powers to direct or cause the direction of the management and policies of a person (or organization or association) whether through the ownership of voting shares, contract, or otherwise."

#### **Response:**

The commenter cites a Federal Register reference to the SEC definition of "control" from 1980, and disregards the substantial body of U.S. EPA policy, guidance, and applicability determinations that have developed over the last 30 years. The question of whether "common control" exists in a particular situation should be evaluated using U.S. EPA's policies and precedents. U.S. EPA policy and guidance interpreting and applying the term "common control" as used in U.S. EPA's PSD regulations make it clear that common corporate ownership and management are to be considered but are not the determining factors in deciding whether two facilities are under "common control." See Response to Comments LCEA-7 and 8.

## **Comment (RS-8):**

There is no dispute that Mirant Corporation is the parent company of Mirant Marsh landing LLC and Mirant Delta LLC. Mirant Corporation issued a press release announcing the MLGS's 10 year contract with the PG&E and in the same press release announce the extension of the CCPP contract with PG&E. Mirant reported both the CCPP and the MLGS contracts together on their Form 8-K to the Securities and Exchange Commission. Mirant Corporations upper management has been active in the attempted contract approval at the CPUC. Once the district examines the facts there can be no dispute that the two projects are under common control

#### **Response:**

See Response to Comment LCEA-7. The Applicant does not dispute that the MLGS and the CCPP are under ultimate common ownership.

#### **Comment (RS-9):**

The EPA has provided guidance "that when a company places a source on another company's land there is a presumption of a "control relationship. It is the applicant's burden to overcome this presumption of control." To overcome this presumption, the applicant needs to "provide information showing that the new source has no ties to the existing source, or vice versa." Here, Mirant has not met its burden of overcoming a control relationship, nor would it be capable of doing so. EPA guidance documents state that "new facilities that locate on the site of a present major stationary source should be considered part of the existing major source" when that source is under common ownership. The first EPA-dictated factor to examine is whether the facilities are under "common control." EPA guidance provides for a practical evaluation of the interaction between the two facilities and the companies that run them. For instance, EPA has stated that "companies don't just locate on another's property and do whatever they want. Such relationships are usually governed by contractual, lease, or other agreements that establish how the facilities interact with one another."

# **Response:**

See Response to Comment LCEA-7. The Applicant does not dispute that the MLGS and the CCPP are under ultimate common ownership. With regard to the September 18, 1995 letter from William Spratlin (U.S. EPA Region VI) to Peter Hamlin ("Spratlin Letter"), the Applicant agrees with the commenter that "U.S. EPA guidance provides for a practical evaluation of the interaction between the two facilities." The Spratlin Letter lists seven questions that serve as a "screening tool" for evaluating whether "common control" exists. The White Paper relies on the Spratlin Letter and more recent U.S. EPA guidance and applicability determinations to provide precisely the sort of "practical evaluation" called for by the commenter.

## **Comment (RS-10):**

The EPA guidance letter lists factors that can be considered to demonstrate the ties between the facilities. The number one factor is "Do the facilities share common workforces, plant mangers, corporate executive officers, or board of executives." The MLGS and the CCPP facilities share common executive officers, parent companies, lobbying efforts and regulatory positions. John Chillemi is the president of Mirant Marsh Landing and Mirant Delta LLC. That fact alone demonstrates that both the MLGS and the CCPP are under common control and should be treated as one facility. John Chillemi has also acted as a representative of Marsh Landing and Mirant California. Further, for both corporations Ron Kimo is listed as the environmental director for Mirant Marsh Landing and Mirant Willow Pass and he has represented Mirant Corp on environmental committees. Chuck Hicklin is the Project manger for both Mirant Marsh Landing and Mirant Willow Pass. Stephen Julian is in charge of business development for both Mirant Marsh Landing and Mirant Willow Pass. Andrea Ricci is the senior environmental engineer for both projects. Andrea Ricci is also the regulatory contact for Mirant Delta LLC and Mirant Marsh Landing LLC. Mirant California, Mirant Delta, and Mirant Marsh Landing have provided unified positions on regulatory proposals like the Cal-ISO Large interconnection process. Mirant Marsh Landing and Mirant California and Mirant America are all active in the contract approval proceeding of the Mirant Marsh Landing at the CPUC.

While some of the individuals mentioned in the comment are incorrectly identified, the Applicant does not dispute that certain employees have roles at both Mirant Delta, LLC and Mirant Marsh Landing, LLC, as well as other Mirant affiliates and/or parent entities. See Responses to Comments LCEA-7 and 8, and Response to Comment RS-9. The Spratlin Letter (again relied upon by the commenter) specifies that the fact that two facilities may have certain common employees is a factor to be considered in determining whether the facilities are under common control. However, this is just one of many factors to be considered in making such a determination, and has no priority over the other factors listed in the letter.

## **Comment (RS-11):**

Another factor the EPA considers in its guidance document is whether the facilities share equipment, other property, or pollution control equipment? On pages 2-18 and 2-19 of the AFC it provides that the existing Contra Costa Power Plant (CCPP) fire pumps will be used to discharge to the new MLGS dedicated extension of the existing underground firewater loop system. There will be no new fire pump for the MLGS.

Stormwater runoff from the CCPP site will be diverted to the existing CCPP oil-water separator for treatment prior to discharge to the San Joaquin River via the existing CCPP Outfall 001. So the facilities utilize common water pollution control equipment.

The interconnection request submitted by Mirant to the Cal-ISO outlines Mirant's plans to use the existing interconnection of the Contra Costa power Plant and requests only interconnection of an additional 100 MW. Therefore they will share common transmission facilities.

The MLGS parcel is to be created out of a 23 acre division of Mirant's existing parcel and yet during construction, approximately 41 acres associated with the MLGS project would be disturbed for the proposed project lay down, temporary parking, and the proposed MLGS site. The approval for the parcel division was enacted after the MLGS was proposed.

The guidance letter concludes that if, "if the facilities respond in the positive to one or more of the major indicators of control (e.g., management structures, plant managers, payroll, and other administrative function), then the new company is likely under the control of the existing source, or under common control of both companies, and cannot be considered a separate entity for permitting purposes."

# **Response:**

See Responses to Comments LCEA-22 and 23 and RS-9 and 10. The Applicant does not dispute that the application for a subdivision of the CCPP site was not submitted until after the MLGS was proposed. The commenter again focuses on just one factor to the exclusion of the many factors identified in the Spratlin letter and other U.S. EPA guidance on determining common control. The use of a common firepump and common stormwater system has no bearing on operation of the CCPP and MLGS facilities for the generation of electricity. The subdivision of the CCPP site to create a separate legal parcel for MLGS is a factor showing that CCPP and MLGS are not under common control.

## Comment (RS-12):

The Preliminary Determination of Compliance does not contain conditions to shut down the Contra Costa Power Plant. Instead the PDOC states that, "Mirant Delta will submit an application for an amendment to its Air District permit to incorporate the foregoing permit condition." There is no binding commitment that the District can identify in this permit that in fact the Contra Costa Power Plant will close.

## **Response:**

See Response to Comment LCEA-9.

# **Comment (RS-13):**

The District analysis relies on a promise that Mirant will in fact amend the PDOC and insert the following permit condition in the FDOC:

"Subject to: (i) receipt of final, non-appealable California Public Utilities Commission approval of the Tolling Agreement for Units 6 and 7 at the Contra Costa Power Plant by and between Mirant Delta, LLC and Pacific Gas and Electric Company and dated as of September 2, 2009, as amended from time to time, without material condition or modification unacceptable to either party thereto in its sole discretion; and (ii) the receipt of all other approvals and consents from the relevant local, state and federal governmental agencies (including but not limited to the California Independent System Operator) necessary for the shutdown and permanent retirement from service of Units 6 and 7; Mirant Delta, LLC will shut down and permanently retire Units 6 and 7 from service at 2400 PDT on April 30, 2013."

The promised permit condition does not constitute a binding commitment to shut down the Contra Costa Power Plant.

#### **Response:**

See Response to Comment LCEA-10.

#### Comment (RS-14):

First for the Contra Costa Power Plant to shut down Mirant must receive a, "final, non-appealable California Public Utilities Commission approval of the Tolling Agreement for Units 6 and 7 at the Contra Costa Power Plant by and between Mirant Delta, LLC and Pacific Gas." That event has not occurred and there is still considerable uncertainty that it will.

#### **Response:**

See Response to Comment LCEA-11.

## Comment (RS-15):

Second the MLGS must also receive a final non-appealable CPUC approval of its contract for the Marsh Landing Facility or there will be no shutdown of the Contra Costa Power Plant. That event also has not occurred and there is still considerable uncertainty that it will.

## **Response:**

See Response to Comment LCEA-12.

## Comment (RS-16):

Third even if the contingences in the proposed condition above happen Mirant can under the terms of the proposed condition at is "own discretion" refuse to close the Contra Costa Power Project if it does not approve of a material condition or modification of the PPA with PG&E.

## **Response:**

See Response to Comment LCEA-13.

#### **Comment (RS-17):**

Mirant America has cautioned investors that the PPAs and the closure of the CCPP are subject to many uncertainties.

# **Response:**

The cited filings do not mention or discuss "the closure of the CCPP." The comment otherwise accurately cites Mirant Corporation filings with the Securities and Exchange Commission, and the Applicant acknowledges that there are uncertainties associated with the approval of the PPAs.

#### Comment (RS-18):

There may also be other conditions in the agreement between Mirant and PG&E which must be fulfilled to close the CCPP.

#### **Response:**

The only conditions that must be fulfilled before Mirant Delta, LLC shuts down the CCPP are set forth in the CCPP permit amendment, which Mirant Delta submitted to the District on May 11, 2010.

#### Comment (RS-19):

Further it takes the consent of relevant local, state, and federal governmental agencies to shutdown Units 6 and 7 of the Contra Costa Power Plant.

See Response to Comment LCEA-14.

## **Comment (RS-20):**

As the BAAQMD is painfully aware the closure of aging facilities in the BAAQMD would counsel against any reliance on a condition that requires approval of various local state and government agencies. Shuttering old power plants can be a long process. The two counterparties to this closure agreement have a long and checkered history related to closing aging power plants.

## **Response:**

See Response to LCEA-15.

#### Comment (RS-21):

PG&E first announced the closure of the Hunters Point Power Plant in July of 1998. The Plant didn't shut down till eight years later in 2006.

## **Response:**

See Response to Comment LCEA-16.

## **Comment (RS-22):**

The Mirant Potrero Power Plant signed a term sheet with the City of San Francisco in November of 2007 to close the plant and is still running.

#### **Response:**

See Response to Comment LCEA-17.

#### Comment (RS-23):

It was just announced that troubles with the Trans-Bay Cable have further delayed its closure. The Trans-Bay cable itself may delay the closing of the CCPP since power for the cable must come from the Antioch/Pittsburg area.

#### **Response:**

See Response to Comment LCEA-18.

## Comment (RS-24):

In May of 2006, Mirant filed a 90 day notice with the PUC and CAISO to shut down Contra Costa Unit 6. Mirant sought to shut down unit 6 because its continued operation was "not economical." In a press release issued in August of 2006, Mirant announced that it had

negotiated with PG&E to keep Units 6 operating, thus withdrawing its notice of intent to shut unit six down.

### **Response:**

See Response to Comment LCEA-19.

#### Comment (RS-25):

PG&E's 2006 Long Term Procurement Plan shows that the Contra Costa 6 Unit isn't needed for reliability in 2006 and beyond but the project is still operating. PG&E's 2006 Procurement Plan also says that the Contra Costa 7 Unit would no longer be needed after the Gateway Project (Contra Costa 8) became operational. Gateway became operational in January of 2009 but both Units still operate.

## **Response:**

See Response to Comment LCEA-20.

### Comment (RS-26):

Mirant's proposed condition for the FDOC also does not contain a clause which prevents simultaneous operation of Marsh Landing and the Contra Costa Power Plant if the multiple contingencies do not occur. Further Mirant's contract with PG&E contains other condition precedents for the closure of the CCPP.

#### **Response:**

See Response to Comment LCEA-21. The comment provides no basis for the assertion that there are "other conditions precedent for the closure of the CCPP" nor does it cite any such conditions. As noted in Response to Comment RS-18 above, the only conditions that must be fulfilled before Mirant Delta shuts down the CCPP are set forth in the CCPP permit amendment, which Mirant Delta submitted to the District on May 11, 2010.

#### Comment (RS-27):

The EPA Administrator has signed a final rule designating the San Francisco Bay Area as nonattainment for the PM2.5 24-hour standard. Under EPA policy, since the District did not have a SIP-approved permitting program for PM2.5 when the nonattainment designation became effective, 40 C.F.R. Part 51, Appendix S will govern permitting for major sources of PM2.5 until a SIP-approved permit program is in place.

Under Appendix S, the analysis is essentially the same as under the PSD rules, except that each nonattainment pollutant is evaluated independently: Since the CCPP and Marsh Landing are by definition a single facility, the 100 TPY nonattainment area major stationary source threshold is applied collectively to the facilities. Marsh Landing will be a major modification to an existing source under Appendix S because the CCPP and MLGS are a single stationary source and their potential combined emissions for PM2.5 will be over 100 tpy.

See Response to Comment LCEA-24.

## Comment (RS-28):

The District has proposed the use of SCR to control NOx emissions. The District is allowing a 10ppm limit for ammonia slip. Some ammonia slip is unavoidable with SCR due to the non-uniform distribution of the reacting gases. Thus, some ammonia will pass through the catalyst. In the past, ammonia slip was not considered to be a problem by regulatory agencies because they felt that by releasing it from an elevated stack, the ground level concentration would be low.

The District performed an analysis on secondary particulate formation from precursor emissions which they cite n the PDOC. Despite the results of this modeling report the District concludes that secondary particulate formation from ammonia emissions is not significant. The recent draft study performed by the district draws an entirely different conclusion. The BAAQMD Draft PM 2.5 study concluded, "Reducing ammonia emissions by 20 percent (around 15 tons/day) was the most effective of the precursor emissions reductions. Secondary PM2.5 levels were typically reduced 0-4 percent, depending on location, with an average around 2 percent. Reducing NOx and VOC emissions by 20 percent (around 250 tons/day total) was relatively ineffective. Reducing sulfur containing PM precursor emissions by 20 percent (around 16 tons/day) typically had a small impact on Bay Area PM2.5."

It is feasible for the project to limit ammonia emissions to a lower slip level. Not only should the District require a lower ammonia slip level the District can and should provide mitigation for the ammonia slip secondary particulate impacts. As the District Draft PM 2.5 Modeling study concluded ammonia emissions are the largest precursor contributor of secondary PM 2.5.

#### **Response:**

See Responses to Comments LCEA-26 and 27.

#### Comment (RS-29):

The District is proposing a BACT PM-10 emissions limit of 9.0 lb/hr, which corresponds to an emission rate of 0.0041 pounds per MMBtu of natural gas burned

(lb/MMBtu). The manufacturer guarantees an 8 pound per hour limit for the Siemens 5000F turbines. The District provides results of source tests for similar turbines which have a CO catalyst and SCR. The average PM-10 emission rate is .0026 MMBtu. This is almost half of the proposed permit level for the MLGS. BAQMD Regulation 2-2-206 (b) requires as BACT, "The most stringent emission limitation achieved by an emission control device or technique for the type of equipment comprising such a source." The evidence presented in this permitting record demonstrates that the MLGS can achieve a much lower emission rate than the District is proposing. The District should also require an air inlet filter to lower particulate emissions.

See Response to Comment LCEA-29.

## **Comment (RS-30):**

The Districts emission limits during commissioning are not adequate to prevent the project from violating the Federal 1 hour standard. In the commissioning phase with all four turbines operating the projects maximum impact is  $170.02~\mu g/m3$ . The background is  $122.1~\mu g/m3$ . The combination of the four turbines in commissioning mode combined with background concentrations equals  $292~\mu g/m3$  which violates the new Federal NO2 standard of  $191~\mu g/m3$ . The District states that the only control technology available for limiting emissions during commissioning is to use best work practices to minimize emissions as much as possible during commissioning, and to expedite the commissioning process so that compliance with the stringent BACT limits for normal operations can be achieved as quickly as possible. The District has another option which is to limit the project so only two turbines can be operated in Commissioning mode at one time to prevent a violation of the federal 1 hour NO2 standard.

## **Response:**

See Response to Comment LCEA-30.

## **Comment (RS-31):**

A larger issue is the simultaneous operation of the MLGS and the CCPP. The District fails to provide any analysis of the MLGS operating in commissioning mode with the Contra Costa 6 & 7 units operating. The District has not analyzed the impact of both projects operations during commissioning and has provided no conditions which would prevent the simultaneous operation of both projects at that time. Also as discussed earlier the PDOC does not contain an enforceable condition to shut the CCPP down. There is also no condition to prevent both the CCPP and the MLGS from operating at the same time in the event the CCPP does not shut down. Therefore the District must provide a condition to prevent simultaneous operation or analyze the impact of both projects operating at the same time.

## **Response:**

A cumulative dispersion modeling analysis was conducted for the MLGS in response to a data request from the CEC. See Responses to Data Request Set 3 (#70-98) (URS, 2010a). This assessment included simultaneous emissions of the MLGS, the Willow Pass Generating Station, the CCPP, the Gateway Generating Station, the Pittsburg Power Plant and other new emission sources within a six-mile distance around the MLGS site. The results showed that the combined impacts of these sources plus background air quality levels recorded at representative monitoring sites within Contra Costa County would be below all applicable ambient air quality standards. See also Responses to Comments LCEA-31 and 32.

### **Comment (RS-32):**

EPA's Interim Policy to Mitigate Concerns Regarding GHG Emissions from Construction or Modification of Large Stationary Sources has concluded that GHGs will not become subject to regulation (and hence the PSD BACT requirement will not apply to them) no earlier than January 2, 2011. EPA guidance provides that permitting authorities that issue permits before January 2, 2011 are already in a position to, and should, use the discretion currently available under the BACT provisions of the PSD program to promote technology choices for control of criteria pollutants that will also facilitate the reduction of GHG emissions. More specifically, the CAA BACT definition requires permitting authorities selecting BACT to consider the reductions available through application of not only control methods, systems, and techniques, but also through production processes, and requires them to take into account energy, environmental, and economic impacts. Thus, the statute expresses the need for a comprehensive review of available pollution control methods when evaluating BACT that clearly requires consideration of energy efficiency. The consideration of energy efficiency is important because it contributes to reduction of pollutants to which the PSD requirements currently apply and have historically been applied.

Further, although BACT does not now apply to GHG, BACT for other pollutants can, through application of more efficient production processes, indirectly result in lower GHG emissions.

## **Response:**

See Responses to Comments LCEA-36 and LCEA-37.

### Comment (RS-33):

According to the PDOC the Marsh Landing Facility could emit as much as 741,540 metric tons per year of GHG Emissions. The MLGS was originally proposed as two combined cycle units and two combustion turbines. The GHG emissions per MW were much smaller and the operating characteristics of the two configurations were very similar. The BAAQMD could easily conclude that the combined cycle configuration is BACT for GHG emissions for the MLGS and all other pollutants since the emission rates would be lower and the efficiency higher.

#### **Response:**

See Response to Comment LCEA-37.

#### Comment (RS-34):

At a minimum the District is required by recent EPA guidance to provide a technology evaluation under its BACT analysis to minimize Greenhouse Gas Emissions and other criteria pollutants.

### **Response:**

See Responses to Comments LCEA-36 and 37.

### Comment (RS-35):

The District is currently reviewing applications for three power projects in Contra Costa County, the MLGS, Willow Pass, and Oakley. The District is also reviewing the Mariposa Project which sits on the border of the San Joaquin Valley Pollution Control District and the BAAQMD. One Hundred percent of the emissions from the Mariposa Project will impact the San Joaquin Valley.

### **Response:**

Comment noted. The Applicant has no knowledge regarding emissions associated with the Mariposa project.

## **Comment (RS-36):**

In the Tesla Proceeding the CEC determined that 70% of the emissions from sources in Antioch and Pittsburg impact the San Joaquin Valley. The impact from the four projects in the Tracy area and San Joaquin Valley is represented below in the table below.

Total Maximum Annual	Emissions	1				
	NO2	VOC	PM 2.5	CO	SO <sub>2</sub>	
Marsh Landing	72.0	14.2	31.6	138.9	4.96	
Oakley	98.8	30.0	76.3	98.8	12.6	
Willow Pass	<b>77.1</b>	28.5	39.4	142.78	10.5	
Total	247.9	83.6	147.3	380.48	28.06	
70% Impact	173.5	<b>58.5</b>	103.1	266.33	19.64	
Mariposa 100%	48.6	11.1	<b>25.8</b>	69.5	3.2	
Total Impact SJV	222.1	69.6	128.9	335.83	22.84	

#### **Response:**

The District has no authority to require mitigation for impacts outside its jurisdiction. By requiring measures to minimize impacts within its jurisdiction, the District is also minimizing impacts in all adjacent areas. In any case, the circumstances of the Tesla project are quite different from those of MLGS. Most notably, the Tesla site was almost immediately on the border between the San Francisco Bay Area Air Basin and the San Joaquin Valley, whereas the MLGS site is well inside the Bay Area Basin. In addition, the MLGS will be operated at most 20 percent of the time.

#### **Comment (RS-37):**

These ERC's may help the District in its balancing act for its attainment status but those ERC's provide no mitigation for the large impact on the San Joaquin Valley from the MLGS and the other three projects the district is processing. Under the Health and Safety Code the District must ensure that emissions from the MLGS do not negatively affect the health and safety of residents in the neighboring district. Title 17, California Code of Regulations, sections 70600 and 70601 also provide regulations to mitigate transport into the SJV. In the FDOC the District must provide a strategy to mitigate the transport of pollutants to San Joaquin Valley from the MLGS and the other projects that it is permitting.

The emission reduction credits the Applicant is providing to offset MLGS emissions accomplish much more than is acknowledged by this comment. By surrendering these credits, which represent shutdowns of previous emission sources in the immediate area of the MLGS site, the Applicant is permanently preventing the use of these credits to offset other projects in the future. By repeating this process for all large projects and requiring offsets on more than a one-to-one basis, the District is gradually lowering overall emissions within its jurisdiction while allowing for economic growth.

The District's rules do not require mitigation of a project's potential impacts due to transport to other areas. However, the mitigation measures imposed on new projects, including offsets, also minimize any potential effects in adjacent jurisdictions. The District routinely notifies all adjacent air districts of new projects and provides them copies of all draft permits so that responses to any concerns expressed by neighboring districts will be incorporated in the final permit.

See also Response to RS-36.

#### Comment (RS-38):

While the applicant has provided a declaration that all power plants owned in the State of California are in compliance or on a schedule of compliance the Mirant Contra Costa Power Plant is a high priority violator according to the EPA Echo website. It is currently in noncompliance with an unaddressed violation and the EPA is the lead agency. 2 Before the District issues the FDOC it must verify first that this major stationary source of which the MLGS is a major modification is in compliance or on a schedule of compliance. The District must also confirm whether the applicants other projects are in compliance.

### **Response:**

The comment correctly notes that U.S. EPA's ECHO website currently shows an unaddressed U.S. EPA violation at the CCPP. The ECHO site indicates that a Notice of Violation was issued on August 13, 2009. The Applicant was not aware of any outstanding unresolved violations at CCPP, and was not in receipt of an NOV dated August 13, 2009. Investigation into this matter shows that the U.S. EPA NOV issued on August 13, 2009 was issued to PG&E's Gateway Generating Station, and not to CCPP or Mirant Delta, LLC. Since the Gateway facility was owned and permitted by Mirant Delta, LLC as CCPP Unit 8 prior to its transfer to PG&E in 2006, U.S. EPA apparently failed to update its facility database and erroneously associated this NOV with CCPP. All Mirant Delta and Mirant Potrero facilities (including CCPP) are in compliance with all applicable state and federal emission limitations and standards. This satisfies the commenter's request for a confirmation of compliance status, and no further action or investigation is needed.

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http://www.epa-echo.gov/cgi-bin/get1cReport.cgi?tool=echo&IDNumber=06013A0018 http://oaspub.epa.gov/enviro/afs reports.detail plt view?p state county compliance src=06013A0018&p plant id

## Response to Comments Received from Rob Simpson (Simpson)

## **Comment (Simpson-1):**

I read that the District is defending the combined cycle facility plan RCEC in the present EAB appeal. How is the demand different for the 2 plants? How many facilities in the District have been built for one type of operation then changed operating profiles like Metcalf that changed form a baseload to be more like a peaker with daily starts? How many in the state? Does the change in operation result in a negative effect on air quality or what is the Effect? Could an applicant benefit by constructing under one operating profile then changing after construction? what would the benefits be to an applicant? Could it avoid PSD permitting constraints?

## **Response:**

Information about the analysis of potential alternatives to MLGS is available on the CEC website at http://www.energy.ca.gov/sitingcases/marshlanding/documents/index.html. MLGS will be limited to operation of up to 20 percent of the year and the CAISO would be responsible for dispatching the unit to meet electrical demand, and Condition 15 of the PDOC limits hours of operation to 7,008 hours per year. The PDOC describes the air pollutant emissions that MLGS will have the potential to emit in Section 4, and the PSD permitting program in Section 7. The project description provided in Section 3 of the PDOC sets forth the configuration of the facility for which the Applicant is obtaining a permit. The Applicant could not "construct under one operating profile and then change after construction" without amending its authorizations at both the District and the CEC. Once the MLGS is constructed, a facility modification would be subject to all applicable laws and regulations.

## **Comment (Simpson-2):**

How much water will it use? Will vaporized water have an effect on air quality or contribute to other pollutants effects? Has that been analyzed? Where will the water come from is the energy to deliver and purify the water considered in the efficiency calculations?

#### **Response:**

MLGS would use up to 50 acre-feet of water per year. Combustion of natural gas will have water vapor as a by-product. The moisture content of the exhaust gas plays a role in the formation of hydrogen sulfate and ammonium sulfate salts, which is accounted for in the 9-pound-per-hour turbine particulate emission limit. Potential environmental impacts associated with the water supply for the MLGS project have been thoroughly analyzed in the CEC's Staff Assessment, and any potentially significant impacts will be mitigated to a less-than-significant level.

## **Comment (Simpson-3):**

Is the new plant/old plant or both at this address? is there a zip code or further identification of the location available? Would an address have been helpful in describing the location in the public notice? Could a lack of an address in the public notice serve to preclude public participation? Is there or should there be a rule that the address should be in the Public Notice?

Additional information about the project location can be found on the CEC website at http://www.energy.ca.gov/sitingcases/marshlanding/index.html. The Public Notice issued in conjunction with the PDOC satisfied all applicable legal requirements. See BAAQMD Regulation 2, Rules 2-3. The PDOC clearly describes and graphically depicts the location of the MLGS.

### **Comment (Simpson-4):**

Under what potential scenarios could both facilities could operate at the same time

#### **Response:**

See Response to Comment LCEA-21.

### **Comment (Simpson-5):**

What is the degree of variability in these "estimates"?

## **Response:**

Detailed emission calculations, including the derivations of the emissions factors can be found in the appendices of the PDOC. Hourly emissions calculations for only the MLGS gas turbines are based on emission guarantees provided by the vendors for the turbines and catalytic controls and the EPC contractor. Emissions for all averaging times except annual averages have been calculated using multiples of the highest hourly vendor guarantees over the full range of ambient temperatures plus multiples of worst-case turbine startup and shutdown emissions provided by Mirant's equipment vendors and contractors. Annual emissions are calculated using full-load hourly emissions corresponding to an ambient temperature near the local average. These practices ensure that the emission limits presented in the PDOC actually represent the highest theoretically possible values. Actual emissions will undoubtedly be somewhat lower since, as a peaker facility, the MLGS will probably operate mostly in the warmer months, will not always have emission rates at the guaranteed maximum rates, and will not always have all four turbines operating at maximum load.

#### **Comment (Simpson-6):**

What is the recourse if "members of the public disagree with the District's proposal" and the District does not correct them? It has been problematic for me to understand the regulatory structure. It appears that the Warren Alquist Act serves to preclude districts satisfaction of their obligations under the Clean Air Act by interjecting itself between California air Districts and review of their actions. Does the District need to respond to comments? Do PDOC comments become part of the CEC record before an FDOC or after? Does the CEC consider comments received by the district prior to issuance of their FSA Is an FDOC an appealable "final action" if so Where and when would one appeal it? What if the CEC and district determinations differ?

Information regarding opportunities for public comment and participation in the District's permitting process is available in the District's rules and regulations, available at http://www.BAAQMD.gov/Divisions/Planning-and-Research/Rules-and-Regulations.aspx. Information regarding opportunities for public comment and participation in the CEC's certification process is available on the CEC's web page for the MLGS Licensing Case, available at http://www.energy.ca.gov/sitingcases/marshlanding/index.html. The CEC directs parties with questions about participation in siting cases to contact the CEC's Public Adviser at the following:

Public Adviser
California Energy Commission
1516 Ninth Street, MS-12 Sacramento, CA 95814

Phone: 916-654-4489

Toll-Free in California: 1-800-822-6228 E-mail: PublicAdviser@energy.state.ca.us

The Applicant's understanding is that the District will consider and prepare responses to comments received on the PDOC, which will be incorporated into the CEC record for the MLGS project. It is the Applicant's understanding that the CEC takes into account all relevant information received from the District regarding the project.

## **Comment (Simpson-7):**

Please hold a public hearing/meeting. This is a huge project in the community and they should have the opportunity to understand and participate. I am sure that we would have a large response. We have demonstrated in Hayward that there is ample interest if people become aware. I fear the public is largely unaware of this plan and its impacts. For the public comments to have an effect on the Districts decision it must be during the Districts public comment period so CEC hearings are no substitute for District responsibilities in this regard. The EAB demonstrated in the RCEC remand that the Districts reliance on the CEC and combined air quality hearing where no record was kept was inconsistent with the Clean Air Act requirements.

#### **Response:**

The Applicant does not believe a public hearing is necessary in this case. The Applicant has conducted public outreach in the local community and has received strong support for the project from the City of Antioch. The District and the CEC have also satisfied all applicable public notice requirements, and the permitting processes at both the District and the CEC have been accessible and transparent. The CEC has held multiple public workshops for the MLGS, including an information hearing in Antioch, and the CEC will hold evidentiary hearings following the completion of its Revised Staff Assessment.

### **Comment (Simpson-8):**

How much longer do combined-cycle facilities with Fast Start technology take to start. Can you quantify the importance of the difference in start up time between the two as compared to the air quality/public health benefits? What is the difference in the greenhouse gas and pollutants for the 2 designs?

### **Response:**

Regarding MLGS start-up conditions, see the discussion in the PDOC in Section 5.7. Regarding GHG emissions, see Response to Comment LCEA-37.

## **Comment (Simpson-9):**

What is the present ratio of renewables to "efficient, dispatchable, natural-gas-fired generation" are we overbuilt on one or the other? How do we know when we have enough of one or the other? It seems that every gas fired plant uses the same justification but I do not see the development of the corresponding renewables likely due to PG&E and others efforts to prevent the development of renewables.

## **Response:**

California's Renewable Portfolio Standard (RPS) measures compliance not by the ratio of renewable generation to non-renewable generation, but by the percentage of customers' energy needs that are served by eligible renewable generation. California load serving entities (LSEs – commonly known as the electric utilities) are working toward meeting a requirement that they serve 20 percent of their customers' energy demand with renewable generation, and the Governor has issued an Executive Order to raise this minimum requirement to 33 percent. Meeting this standard will require LSEs to maximize their use of renewable facilities as a source for supplying energy to their customers. In other words, it will be important for RPS compliance purposes to ensure that LSEs are able to use renewable power whenever it is available to operate. To do this, LSEs and the CAISO also will need the ability to draw on dispatchable capacity resources to back up and integrate renewable resources to optimize their use. As discussed in Response to Comment LCEA-37, the MLGS will be ideally suited for this purpose and therefore will help contribute to system wide GHG reductions.

#### **Comment (Simpson-10):**

How much is the present plant operating compared to the potential for the new plant"

#### **Response:**

Information regarding the current operation of the CCPP as it relates to MLGS can be found in the applicants responses to CEC Data Requests 75 and 76, which can be viewed on the CEC website at http://www.energy.ca.gov/sitingcases/marshlanding/documents/index.html.

## **Comment (Simpson-11):**

Will the timing of the "amendment" preclude comment on this PDOC for the amendments effects or will the this action be reopened for comment when they submit that application? Why did they not submit it in time for consideration in this comment period

### **Response:**

Mirant Delta, LLC submitted the amendment referenced in the comment, and in the PDOC at Footnote 2, to the District on May 11, 2010. It is not clear what the comment means by the "amendments effects." The operations of the CCPP are not part of the project description for the MLGS, nor is there any permitting process proposed for the CCPP that is related to or dependent on the District's issuance of an Authority to Construct for the MLGS. Mirant Delta, LLC's submittal of the CCPP permit amendment request is independent of the permitting process for the MLGS

## **Comment (Simpson-12):**

Is this plant planned to provide power for the transbay feed to San Francisco? Is it fair that one community suffers the burden of the air quality effects while another enjoys the benefit of the electricity?

### **Response:**

See Response to Comment LCEA-18. The second part of the comment would appear to have been more appropriate for the City of Pittsburg's environmental review of the Trans Bay Cable project, which it concluded in 2006.

#### **Comment (Simpson-13):**

How Would SCONOX or whatever they call it this year, be better? What about a solar preheater? How much would that reduce emissions?

#### **Response:**

The PDOC included an extensive discussion of SCONOx (or EMx) technology in Sections 5.2 or 5.3 of the PDOC, and the District concluded that the use of Selective Catalytic Reduction (SCR) at the MLGS represents BACT for NOx, and that the use of an oxidation catalyst represents BACT for CO emissions. The comment is not clear regarding how a solar preheater could be used at the MLGS facility and the applicant is not aware of any solar preheater technology that would be relevant or appropriate for the MLGS. Furthermore, any reliance on solar technology for a peaking facility like the MLGS, which is intended to integrate and back-up intermittent renewable resources, including solar resources, would undermine the core functions of the MLGS.

## **Comment (Simpson-14):**

It all sounds like the same owner at the same facility as Mr. Sarvey better stated. Why would the District let them get away with calling it a different facility? How much are all the fees collected or to be collected by the district for permitting and operating such a facility?

### **Response:**

See Responses to LCEA Comments 2 through 23 and Responses to RS-Comments 2 through 25. To date, Mirant Marsh Landing, LLC has paid \$580,192 in permitting fees to the District for the MLGS.

## **Comment (Simpson-15):**

Is this exclusion why they don't bother to install a solar preheater? How much do they pollute including greenhouse gases? Could the District include them if they chose?

### **Response:**

Emissions from the two natural gas fired preheaters are documented in both the PDOC and the CEC's Staff Assessment. While the preheaters are exempt from District regulations, their emissions, including GHG emissions, are analyzed in the overall Air Quality analysis prepared by the CEC, and the CEC will require mitigation, including provision of offsets, for all MLGS project emissions, including those from the preheaters. See CEC Staff Assessment, Condition AQ-SC-7; see also Response to Comment Simpson-13 above.

## **Comment (Simpson-16):**

It appears that EMx would be BACT for this facility. Has the District contacted the manufacturer for further information?

#### **Response:**

See Response to Comment Simpson-13.

#### **Comment (Simpson-17)**:

I disagree with the Districts conclusion and request the study and local monitoring be completed prior to closing the comment period for this action

## **Response:**

Comment noted.

### **Comment (Simpson-18):**

The simple cost comparison of technologies does not factor the potential permitting delays caused by adopting SCR which does not appear to be BACT compared to EMx which appears to be.

It is not clear from the comment what the basis for "potential permitting delays" would be. Regarding NOx BACT requirements, see Response to Comment Simpson-13.

## **Comment (Simpson-19):**

The District should adopt a Cost effectiveness or not use cost to rule out controls.

## **Response:**

Comment noted.

## **Comment (Simpson-20):**

Please provide a study to demonstrate the potential differences associated the Electrostatic and baghouse technologies for this facility.

## **Response:**

There is ample evidence in the record to support the District's conclusion that neither electrostatic precipitators nor baghouses would be feasible for the MLGS, and accordingly they do not represent BACT. See PDOC at pp. 39-40. There is no requirement or justification to prepare a study that would further document the inapplicability of these technologies in this case.

### Response to Late Comments Received from Rob Simpson (Simpson Late Addendum)

The District received the following comments from Mr. Simpson at 10:39 P.M., May 2, 2010, two days after the close of the 39-day public comment period, which was nine days longer than the 30-day period required by District regulations. Mr. Simpson had ample time to review and prepare comments on the PDOC (and he did, in fact, submit the set of comments addressed above by the April 30, 2010 deadline). Other commenters submitted their comments by the deadline, and Mr. Simpson should be held to the same standard. The Public Notice and related PDOC materials clearly stated: "Written comments should be sent to Brian K. Lusher, Air Quality Engineer, at the address above, and must be received by April 30, 2010." The Applicant does not believe that the District should expend additional time and resources responding to Mr. Simpson's untimely comments. The Applicant nonetheless provides the following responses to Mr. Simpson's additional, untimely comments.

## **Comment (Simpson Late Addendum-1):**

I am seeking some clarification of if this is a "repower" project The PDOC states; "Marsh Landing facility is intended to be a replacement for the existing facility," 63 and if so what ramifications that this has on the permitting.

#### **Response:**

The MLGS is not a "repower" project. The MLGS is a new, stand-alone facility that will effectively displace the CCPP since the CCPP will shut down concurrent with the start-up of commercial operation of the MLGS.

#### **Comment (Simpson Late Addendum-2):**

I did not find emission data for the existing facility to compare emissions. I did note that the District's press release states; "The project proposes to use cleaner, more efficient technology in place of older equipment, which would benefit air quality." I would like to compare the emissions from the existing and new facility.

#### **Response:**

See Response to Comment Simpson-10.

## **Comment (Simpson Late Addendum-3):**

I would like to reserve comment opportunity after the closure plan for the existing facility is public. Will the closure create emission credits?

## **Response:**

It is not clear what the comment means by "closure plan for the existing facility." There are no District approvals required for the shutdown of the CCPP. Mirant Delta, LLC anticipates terminating relevant permits and approvals when the CCPP is shut down and permanently

retired. Mirant Delta, LLC anticipates that the shutdown will generate emission reduction credits

## **Comment (Simpson Late Addendum-4):**

I did not find adequate monitoring information. I believe that 1 year of local monitoring in the impact area would be appropriate.

### **Response:**

Comment noted. Both the PDOC and the CEC's Staff Assessment reflect all available data, and the Applicant believes there is ample evidence in the record to support the conclusions in the PDOC.

## **Comment (Simpson Late Addendum-5):**

The District should consider the "Jacobson Effect" of Carbon Dioxide creating a dome around emission sources which concentrates pollutants and associated negative health effects in the local community.

#### **Response:**

BAAQMD currently has no regulatory authority to specify controls on individual projects to address what is alleged to be an effect of urban CO<sub>2</sub> emissions, most of which would typically result from vehicular sources.

#### **Comment (Simpson Late Addendum-6):**

The District should consider the effects of the emissions of water vapor.

#### **Response:**

See Response to Comment Simpson-2.

#### **Comment (Simpson Late Addendum-7):**

The District should consider the exhaust gas temperature effect on local temperature and the potential cumulative effect on air quality.

#### **Response:**

The exhaust plumes from the MLGS quickly mix with cooler ambient air upon their release to the atmosphere as evidenced by the growth in cross-sectional area that typically occurs as the exhaust moves away from the stack. This mixing rapidly cools the plume until its temperature is typically indistinguishable from the surrounding air within the first several hundred feet of transport. The volumes of exhaust gases from stack source such as the MLGS are simply too small to have an appreciable effect on local temperature, especially for a facility that will operate no more than 20 percent of the annual hours. In general, the hotter the initial plume temperature the higher it will rise and the lower the ultimate effect on ground level air quality will be.

## **Comment (Simpson Late Addendum-8):**

I reviewed the correspondence identified as footnote 46-47.

Does this constitute some rulemaking that would afford an opportunity for public comment? If so has that opportunity occurred? Appendix S states; "The necessary emission offsets may be proposed either by the owner of the proposed source or by the local community or the state"

## **Response:**

Comment noted. The commenter may contact the District and or the U.S. EPA regarding public comment opportunities. See Response to Comment LCEA-24.

## **Comment (Simpson Late Addendum-9):**

Could the community benefit by emission offsets in the community, more than the old, distant banked credits proposed?

#### **Response:**

The offsets that Mirant will surrender for the project are local as they were generated by facilities located immediately adjacent to the MLGS site.

### **Comment (Simpson Late Addendum-10):**

A, perhaps unintended, effect of skipping the Federal permit required is also skipping GHG considerations;

"The EPA Administrator has recently stated that by April of 2010, the Administrator will take actions to ensure that no stationary sources will be required to get a Clean Air Act permit to cover GHG emissions in calendar year 2010.50 In addition, in the first half of 2011, only sources required by non-GHG emissions to obtain a permit under the Clean Air Act will need to address their GHG emission in their permit applications. Therefore, the Marsh Landing Generating Station is not required to address GHG emissions under the Clean Air Act at this time." PDOC 76

## **Response:**

See Response to Comment LCEA-36 and Response to Comment Sarvey 32.

### **Comment (Simpson Late Addendum-11):**

The District should also review a full biological opinion for the USFWS prior to issuance of an FDOC. The project identified in the letter Dated Sept 16, 2010 to USFWS from Mr. Lusher does not appear to be the same as the PDOC identifies.

Since the MLGS is not subject to PSD permitting requirements, no federal permit is being issued as part of the approvals for the MLGS. Accordingly, there is no "federal action" for the purposes of Section 7 of the federal Endangered Species Act, and consultation with the U.S. Fish and Wildlife Service has therefore not been triggered. The comment appears to be referring to a letter from Mr. Lusher to the U.S. Fish and Wildlife Service referencing the originally proposed MLGS project configuration. Any potential biological impacts associated with the MLGS have been fully reviewed by the CEC in its Staff Assessment. See Staff Assessment, Section 4.2.

## **Comment (Simpson Late Addendum-12):**

What is the time limit for issuance of PDOC or draft permit or permit after submittal of an AFC. It would seem relevant that it be a short period between application and permit in the ever evolving world of air quality regulations so that facilities are built with "modern, cleaner operating generating equipment" (press release)

## **Response:**

Information regarding the District's permitting process is available in the District's rules and regulations, available at http://www.BAAQMD.gov/Divisions/Planning-and-Research/Rules-and-Regulations.aspx. The District issues the PDOC approximately 180 days after the Applicant filed its Amendment to its Application for Certification for the MLGS on September 22, 2009, consistent with applicable District regulations.

## **Comment (Simpson Late Addendum-13):**

It seems that, its not that the determination was made that the project did not need a Clean Air Act permit but that the need would be satisfied as described in footnotes 46-47.

## **Response:**

See Response to Comment LCEA-24.

#### **Comment (Simpson Late Addendum-14):**

It would appear that the District already set its precedent for greenhouse gas consideration in the RCEC permit. This facility should not be held to a lower standard and the District should be seeking GHG limitations.

### **Response:**

See Responses to Comments LCEA-36 and RS-32. GHG emissions from the MLGS are not currently subject to regulation under the Clean Air Act. It is the Applicant's understanding that the applicant in the Russell City Energy Center (RCEC) case voluntarily agreed to accept enforceable conditions related to GHG emissions in its PSD permit. The RCEC is a very different facility than the MLGS, and the GHG conditions included in the RCEC PSD permit are neither precedential nor applicable to the air permit for the MLGS.

## **Comment (Simpson Late Addendum-15):**

I applaud the District in posting the record for this action on their website. It makes it much easier for me to understand the basis for the action. It is still a daunting task for me to understand the process. It must be particularly daunting for a member of the public without a history of reviewing air permits. They may not likely delve too far in without, the call to action of, an effective Public Notice. I still contend that the Public Notice issued for this facility and other fails to do that

## **Response:**

Comment noted. The Applicant disagrees with the assertion that the Public Notice issued in conjunction with the PDOC for the MLGS was defective in any way.

## **Comment (Simpson Late Addendum-16):**

The Notice does not contain an address of the facility or adequately identify the location.

#### **Response:**

The Public Notice issued in conjunction with the MLGS PDOC satisfied all applicable legal requirements. In fact, the District went beyond the minimal requirements by issuing a Press Release and publishing a Newspaper Flyer (in both English and Spanish) in addition to the requisite Public Notice. See http://www.BAAQMD.gov/Divisions/Engineering/Public-Notices-on-Permits/2010/032210-18404/Marsh-Landing-Generating-Station.aspx. The Public Notice and the PDOC clearly describe and graphically depict the location of the MLGS, along with all relevant and applicable information related to MLGS emissions.

#### **Comment (Simpson Late Addendum-17):**

The Notice does not identify an opportunity to request a public hearing.

## **Response:**

See Response to Comment Simpson Late Addendum-16.

#### **Comment (Simpson Late Addendum-18):**

The Notice does not identify if this is also the Notice for a District ATC draft permit.

#### **Response:**

See Response to Comment Simpson Late Addendum-16.

#### **Comment (Simpson Late Addendum-19):**

The Notice does not identify any of the projects effects on air quality in relationship to the NAAQS and attainment status or otherwise.

See Response to Comment Simpson Late Addendum-16.

## **Comment (Simpson Late Addendum-20):**

The Notice does not identify any pollutant. Passing reference to the acronyms NOx and POC with no definition does not serve to inform. The Particulate matter and lack of attainment may be the greater threat or GHG. The District could be leading people to believe that the area is in attainment by the omission of any Notice otherwise and the statement that; "The project is not subject to "Prevention of Significant Deterioration" (PSD) requirements" If the District later decides that the project needs a PSD permit but closes this record, precluding public participation in the State permit, then the people may be misled by the statement, to not participate in this part of the action.

## **Response:**

See Response to Comment Simpson Late Addendum-16. The comment presumes an impossible scenario. Because the MLGS is not subject to PSD permitting requirements, the District would not "later decide that the project needs a PSD permit," and even if the District did determine that the MLGS somehow triggered PSD requirements, it would need to prepare a PSD permit and circulate it for public comment.

## **Comment (Simpson Late Addendum-21):**

The Notice is conclusionary; "The project would utilize the Best Available Control Technology to minimize emissions" and "The project is not subject to "Prevention of Significant Deterioration" (PSD) requirements" I think that these are really the questions to be posed to the public.

#### **Response:**

See Response to Comment Simpson Late Addendum-16. The Public Notice speaks for itself in "inviting written public comment" on the "Preliminary Determination of Compliance" (emphasis added). The Public Notice states further that the "District is inviting public input and comment on the Preliminary Determination of Compliance. The District will consider any public comments it receives and may then issue a Final Determination of Compliance." The Applicant notes that the District is responsible for the interpretation of applicable laws and regulations and the determination of BACT requirements.

## References

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- California Energy Commission, 2010, Staff Assessment for Marsh Landing Generating Station, April.
- Farabee, David, 2009. Letter dated November 3rd, 2009 from David Farabee of Pillsbury Winthrop Shaw Pittman LLP to Allan Zabel, Senior Counsel, Office of Regional Counsel, U.S. EPA Region IX, and to Alexander Crockett, Assistant Counsel, Bay Area Air Quality Management District. Available at http://www.BAAQMD.gov/~/media/0C526206853B46CB83B47846FBBBC3DA.ashx.
- Mirant Marsh Landing, LLC, 2009. LGIP Interconnection Request, Marsh Landing Generating Station Simple Cycle Unit. September, 21. Available at http://energy.ca.gov/sitingcases/marshlanding/documents/index.html.
- URS, 2010a. Applicants Responses to Data Request Set 3 (#70-98) (08-AFC-03) for Marsh Landing Generating Station, February. Available at http://energy.ca.gov/sitingcases/marshlanding/documents/index.html.
- URS, 2010b. Applicants Responses to Data Request Set 3 (#82 and 83) (08-AFC-03) for Marsh Landing Generating Station, February. Available at http://energy.ca.gov/sitingcases/marshlanding/documents/index.html.
- URS, 2009. Application for Certification Amendment (08-AFC-03) for Marsh Landing Generating Station, September. Available at http://energy.ca.gov/sitingcases/marshlanding/documents/index.html.
- URS, 2008. Application for Certification (08-AFC-03) for Marsh Landing Generating Station, May and Supplemented in September. Available at http://energy.ca.gov/sitingcases/marshlanding/documents/index.html.

ATTACHMENT 1
NOTICE OF INTENT TO COMPLY WITH GENERAL STATEWIDE INDUSTRIAL
STORMWATER PERMIT FOR THE CONTRA COSTA POWER PLANT

Mirant Delta, LLC
Contra Costa Power Plant
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
T 925 779 6500 F 925 779 6509 U www.mirant.com

November 30, 2007

State Water Resources Control Board Division of Water Quality Control Attn: Storm Water, 15<sup>th</sup> Floor 1001 I Street Sacramento, California 95814



Subject:

**Notice of Intent** 

Storm Water Discharges Associated with Industrial Activities

Facility ID No. 5S07S016482

NPDES General Industrial Permit No. CAS000001

**Contra Costa Power Plant** 

Dear To Whom It May Concern:

Attached is a Notice of Intent for Mirant Delta, LLC's Contra Power Plant for National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 that pertains to a newly identified storm water discharge point, Outfall E–006M. Outfall E–006M drains a small area on the northeastern side of Mirant's property and indirectly discharges to the San Joaquin River via a drainage ditch. The area is approximately 0.4 acre and is completely paved. This Notice of Intent complements the Notice of Termination dated June 26, 2007 for Outfall E–006 that Mirant submitted to the Regional Water Quality Control Board due to the property and asset transfer to PG&E. Also enclosed is a figure highlighting the storm water outfalls, including Outfall E-006M.

The Storm Water Pollution Prevention Plan and Monitoring Program Plan has been updated and modified appropriately. Sampling and monitoring of Outfall E–006M will start with the 2007-08 wet season.

If you should have any questions, please contact Steve Bauman, Senior Environmental Engineer, at (925) 427-3381 or at steve.bauman@mirant.com.

Sincerely,

James P. Garlick

Senior Vice President, Operations

cc:

Attachments

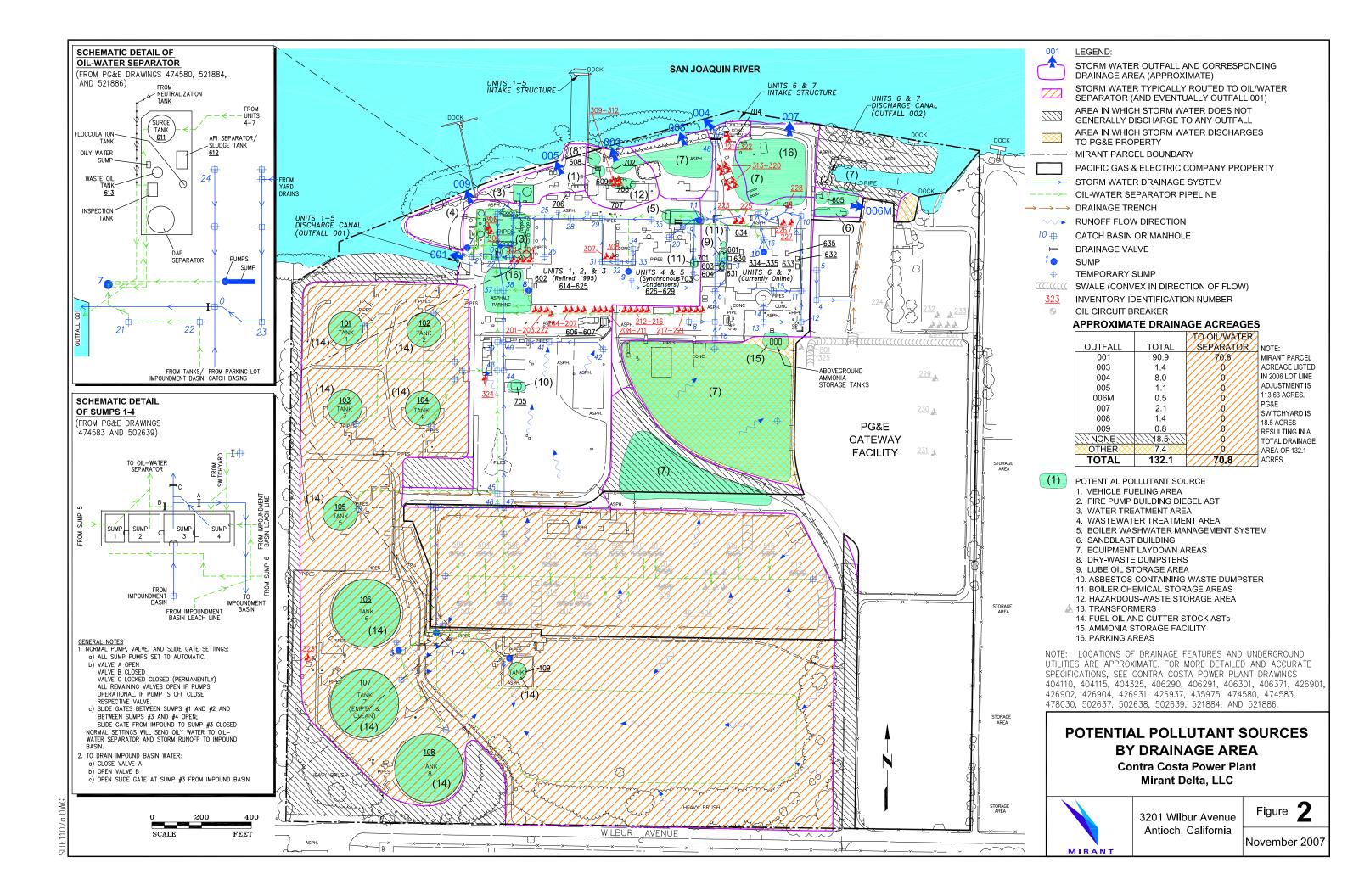
#### State of California State Water Resources Control Board

# **NOTICE OF INTENT**

TO COMPLY WITH THE TERMS OF THE GENERAL PERMIT TO DISCHARGE STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITY (WQ ORDER No. 97-03-DWQ) (Excluding Construction Activities)

SECTION I. NOI STATUS (please check on	ly one box)		
A. [ ] New Permittee B. M Chang	ge of Information WDID # 15 1S 10 17 1S 1	0   1   6	1 41 8121
SECTION II. FACILITY OPERATOR IN	FORMATION (See instructions)		
A. NAME: Mirant Delta LLC			Phone: 925-427-3381
Mailing Address: 3201 Wilbur Avenue	1		
City: Antioch		State: CA	Zip Code: 94509
Contact Person: Steve Bauman	1 1 1 1 1 1 1 1 1 1 1		
B. OPERATOR TYPE: (check one) 1.[ ] Private Individual 2	.[ <b>x</b> ]Business 3.[ ]Municipal 4.[ ]State 5.[ ]	Federal	6.[ ]Other
SECTION III. FACILITY SITE INFORMA	TION		
A. FACILITY NAME Contra Costa Power I			Phone: 925-427-3381
Facility Location: 3201 Wilbur Avenue	111111		County: Contra Costa
City: Antioch	<u>                                      </u>	State: CIA	Zip Code: 94509
B. MAILING ADDRESS: 3201 Wilbur Aven	ue 	·	
City: Antioch	1111	State: <u>CA</u>	Zip Code: 94509
Contact Person: Steve Bauman			
C. FACILITY INFORMATION (check of Total Size of Site: Acres	ne) Sq. Ft. [ ]	Percent	of Site Impervious ( <i>including rooftops</i> )
D. SIC CODE(S) OF REGULATED ACTIVITY: 1. $1\frac{4911}{1}$	E. REGULATED ACTIVITY (describe each SIC Electric Services	,	1 1 1 1
2. 1 1 1 1			<u>                                     </u>
3.		<u> </u>	<u>                                      </u>
			FOR STATE USE ONLY:

SECTION IV. ADDRESS FOR CORRESPON	DENCE	
L_I Facility Operator Mailing Address (Section II)	I_I Facility Mailing Address (Section III, B.)	<b>X</b> i Both
SECTION V. BILLING ADDRESS INFORMA	TION	
SEND BILL TO: [ ]Facility Operator Mailing Address	(Section II) [ ]Facility Mailing Address (Sect	ion III, B.) X]Other (enter information below)
Name: Mirant	<u> </u>	Phone: 678-579-3023
Mailing Address: MS-100CA Perimeter Center	West	•
City: Atlanta	<u>                                      </u>	State: Zip Code: 30338 GiA
Contact Person: Matt Wheeler	<u>                                      </u>	
SECTION VI. RECEIVING WATER INFORMA	ATION	
Your facility's storm water discharges flow: (check one)	★ Directly OR [ ] Indirectly	to waters of the United States.
Name of receiving water: San Joaquin River   S	<u>                                     </u>	1 1 1 1
SECTION VII. IMPLEMENTATION OF PERM	IT REQUIREMENTS	
A. STORM WATER POLLUTION PREVENTION PLAN (\$ [ ] A SWPPP has been prepared for this facility and is availa [ ] A SWPPP will be prepared and ready for review by (enter	able for review.	
B. MONITORING PROGRAM (check one)     [ ] A Monitoring Program has been prepared for this facility a     [ ] A Monitoring Program will be prepared and ready for review.	and is available for review. ew by (enter date):/,	
C. PERMIT COMPLIANCE RESPONSIBILITY  Has a person been assigned responsibility for:  1. Inspecting the facility throughout the year to identify a  2. Collecting storm water samples and having them and  3. Preparing and submitting an annual report by July 1 a  4. Eliminating discharges other than storm water (such	lyzed? of each year?	YES NO
SECTION VIII. SITE MAP		
I HAVE ENCLOSED A SITE MAP YES[★ A	new NOI submitted without a site map will be re	jected.
ECTION IX. CERTIFICATION		
"I certify under penalty of law that this document and all attact assure that qualified personnel properly gather and evaluate those persons directly responsible for gathering the informational am aware that there are significant penalties for submitting read the entire General Permit, including all attachments, and permit, including the development and implementation of a S	the information submitted. Based on my inquiry on, the information submitted is, to the best of my false information, including the possibility of fine at agree to comply with and be bound by all of the	of the person or persons who manage the system, or knowledge and belief, true, accurate and complete and imprisonment. In addition, I certify that I have provisions requirements, and prohibitions of the
Printed Name: James P. Garlick		
Signature: July Could	Date N	November 30, 2007
Title: Serfior Vice President, Operations		



ATTACHMENT 2 LETTER DATED MAY 4, 2010, FROM PEERLESS MFG. CO.



## Corporate Headquarters

14651 North Dallas Parkway Suite 500 Dailas, TX 75254

> Telephone 214-357-6181 FAX 214-351-0194 www.peerlessmfg.com

May 4, 2010

Jon Sacks Director, Development and Transactions **Mirant Corporation** 1155 Perimeter Center West Atlanta, GA 30338-5416

Dear Jon,

Per our conference call last week, Peerless can confirm the previous letters regarding ammonia slip and the amount that is appropriate (including Peerless') were written with respect to combined-cycle (HRSG) applications of SCR where the exhaust bulk temperature, velocity distribution and temperature distribution are much more uniform. Peerless alone has beyond 200+ F Class or larger SCR systems operating within HRSGs, so we have an extensive database of knowledge, which has proven these low levels can be met on combined-cycle plants. Due to these "more ideal" flow properties at the SCR, Peerless knows a 5ppmvd ammonia slip can be met for most HRSG applications.

However, this particular simple-cycle application (Marsh Landing) is quite different. The SCR design required for a simple-cycle F class-combustion turbine causes several key parameters to vary from the ideal situation of a SCR behind a combined-cycle HRSG including:

1. Higher bulk temperature operation

2. The addition of a significant amount of air (400,000+ ACFM) and thus higher mass flow

3. Higher temperature variation at the catalyst

4. Potential for much higher velocity maldistributions, making achieving 5ppmvd much more difficult for this application,

Based on these differences between a combined cycle HRSG SCR and a simple cycle F class SCR, Peerless recommends that the ammonia slip remain at 10 ppmvd.

Multiple capital cost design changes would be required to attempt to achieve 5 ppmvd ammonia slip, and the risk associated with achieving this guarantee with such new technology would be severe.

Best Regards

Tim Shippy

Environmental Systems







ATTACHMENT 3 LETTER DATED MAY 11, 2010, FROM KIEWIT



May 11, 2010

Jon Sacks
Director, Development and Transactions
Mirant Corporation
1155 Perimeter Center West
Atlanta, Georgia 30338-5416
jon.sacks@mirant.com

TEL: 678-579-7739 FAX: 678-579-5739

RE: Marsh Landing Generating Station

KPE Project No. P009-019

Ammonia Slip

#### Dear Jon:

Please see the following as it pertains to the Marsh Landing Generating Station and Kiewit's analysis of the implications of a 5 ppm versus a 10 ppm ammonia slip level from the SCR of the proposed simple cycle Siemens SGT6-5000F4 units.

- a. Additional Capital Cost on the SCR Per Kiewit's potential vendors, the total additional capital expenditures for all four (4) units to sufficiently upgrade the catalyst and ammonia injection systems would be approximately \$1.3M.
- b. Additional Maintenance Cost on the SCR Based on today's pricing, the SCR catalyst replacement cost is estimated at approximately \$900k/unit for a 10ppm slip limit and approximately \$1.1M/unit for a 5ppm slip limit. This would mean that the additional cost to change out all four units would be approximately \$800k per replacement. With the uniqueness of this plant and with the cyclical loading, it is very difficult to predict what the actual catalyst longevity will be. Based on the information from our SCR vendors, we would expect up to six (6) catalyst change-outs for a 10 ppm slip limit and at least one additional catalyst change and possibly two additional catalyst changes by going to the 5ppm slip rate during the first 30 years of the project life cycle.
- c. Additional Ammonia Consumption based on our vendor's calculations, there will not be a big difference in ammonia consumption at 5ppm vs. 10ppm slip. However, it would be reasonable to assume approximately 6,000 gallons of less ammonia per year per unit at 5ppm slip than 10ppm slip. This annual plant savings from lower ammonia consumption is estimated at approximately \$20,000.
- d. Based on the information listed above, a life cycle of 30 years, a discount rate of 10% and an expected ammonia slip reduction of 54 tons per year, it is estimated that the incremental net present value cost per ton at a 5ppm slip versus a 10ppm



slip would range from \$40,000/ton to \$95,000/ton. The low end of the this range is calculated assuming no incremental catalyst changes would be needed for the 5ppm slip as opposed to the 10ppm slip limit and the upper end of this range is calculated assuming two (2) incremental catalyst changes would be needed to maintain the 5ppm slip limit during the first 30 years of the project life cycle.

e. Additional Risk Cost on the SCR – At this time, Kiewit is not willing to provide a guarantee to go to a 5ppm ammonia slip and Kiewit's potential SCR vendors have not agreed to bear this additional risk either. The engineering, technical, and financial risk associated with moving to the lower ammonia slip level is substantial given the complexity and uniqueness of this project. This lower level would have an impact on the emission minimum acceptance criteria (MAC) and the performance MACs, both of which are tied to achieving substantial completion. Kiewit is not willing to bear this risk at this time.

Please feel free to contact me if you have any additional questions on this matter.

Regards,

Kevin Needham

Vice President of Natural Gas Projects

Muellon

Kiewit Power

JKN

Enclosure

cc: Jacob Albers, KPE

Mike Ammer, Mirant

f: 110