

DOCKETED

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Project Title:	Otay Mesa Compliance
TN #:	204726
Document Title:	Petition for Hot Gas Path Component Replacement
Description:	Petition to Amend
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Organization:	California Energy Commission
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OTAY MESA ENERGY CENTER, LLC

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HOUSTON, TX 77002

May 14, 2015

Mr. Dale Rundquist
Compliance Project Manager
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

**RE: Otay Mesa Generating Project: 99-AFC-5
Hot Gas Path Component Replacement with Advanced Components**

Dear Mr. Rundquist:

Pursuant to Section 1769 of the California Energy Commission ("CEC") Siting Regulations, Otay Mesa Energy Center, LLC ("OMEC") hereby submits the attached Petition for a Staff Approved Modification ("Petition") for replacement of certain components in the gas turbine hot gas path at the Otay Mesa Generating Project ("Project").

OMEC plans to replace certain combustion section components with Advanced Gas Path ("AGP") components on the two existing combustion turbines at the Project. Because of the harsh environment in which they operate, hot gas path components are regularly replaced according to industry accepted and manufacturer recommended maintenance cycles. The current installed hot gas path components are scheduled to be replaced during the planned major maintenance outage in Spring 2016.

The AGP replacement components will improve the turbine heat rate, generating power more efficiently. The improved efficiency will be obtained by increasing the turbine firing temperature. The existing hot gas path components such as turbine blades, nozzles, and associated structural elements were not designed to operate at the higher temperatures and must be replaced. These AGP components will be functionally identical to the existing equipment except that they will be made from advanced materials that can withstand higher temperatures. The AGP replacement components will increase the combined generating capability of both turbines, regardless of ambient temperature, by approximately 15 megawatts ("MW") and will also improve the heat rate (fuel efficiency) of the entire plant by 50-100 Btu/kWh while continuing to meet all existing air emissions limits established in the existing permits.

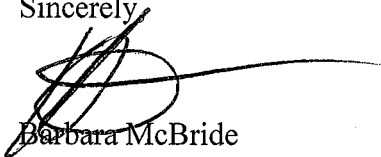
Approval of the Petition will not result in a significant effect on the environment or require any changes to the existing Conditions of Certification for the Project. The Project will continue to comply with all applicable laws, ordinances, regulations, and standards ("LORS"). The proposed replacements will not affect the operation of the low NOx combustors or the selective catalytic reduction emissions control systems. The facility will continue to meet all existing emissions limits established in the existing permits.

The San Diego Air Pollution Control District ("SDAPCD") determined that based upon the description of the planned work, and the fact that there will be no changes to the equipment description or operating conditions of the Permits to Operate for the Project, that the replacement of the hot gas path components constitute maintenance work. As a result, no amendments to the Permits to Operate are needed. OMEC's request to the SDAPCD and SDAPCD's response letters are attached.

In summary, the proposed replacements will not result in any significant environmental effects or require changes or deletions of any Conditions of Certification as set forth in the 2001 Commission Decision, as most recently amended on March 11, 2015. Further, the proposed replacements will not affect the Project's compliance with all applicable LORS.

Please do not hesitate to contact me if you have any further questions.

Sincerely,



Barbara McBride

Director, Environmental Services *MC*

OTAY MESA ENERGY CENTER PETITION FOR A STAFF APPROVED MODIFICATION

Pursuant to Section 1769 of the California Energy Commission's Siting Regulations, Otay Mesa Energy Center, LLC ("OMEC") hereby submits the following information in support of a staff approved modification.

- **Section 1769 (a)(1)(A) and (B) requires a description of the proposed modifications, including new language for affected conditions and the necessity for the modifications.**

OMEC plans to replace the Advanced Gas Path ("AGP") on the two existing turbines at the Otay Mesa Generating Project ("Project"). While the replacements will improve turbine heat rates, the Project will continue to meet all existing heat input and emissions limits established in the existing permits. No changes to the Project's Conditions of Certification are required for the replacements.

The improved efficiency will be obtained by increasing the turbine firing temperature. The existing hot gas path components such as turbine blades, nozzles, and associated structural elements are not designed to operate new, higher temperatures and must be replaced. These components will be functionally identical to the existing equipment except that they will be made from advanced materials that can withstand higher temperatures. The project will not affect the operation of the low NO_x combustors or the selective catalytic reduction emissions control systems.

- **Section 1769(a)(1)(C) requires a discussion of whether the modification is based on information that was known by the petitioner during the certification proceeding, and an explanation of why the issue was not raised at that time.**

The proposed modification is not based upon information that was known during the certification proceeding for the Project.

- **Section 1769(a)(1)(D) requires a discussion of whether the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, and explanation of why the change should be permitted.**

The modification does not change or undermine the assumptions, rationale, findings, or other bases of the Commission's decision certifying the Project. The AGP replacement components will increase the generating capability, regardless of ambient temperature, by approximately 15 MW and will also improve the heat rate (fuel efficiency) of the entire plant by 50-100 Btu/kWh while continuing to meet all existing air emissions limits established in the existing permits.

- **Section 1769(a)(1)(E) requires an analysis of the impacts the modifications may have on the environment and proposed measures to mitigate any significant adverse impacts.**

There is no possibility that the proposed modification will result in any significant adverse environmental impacts; thus, no mitigation measures are required. The proposed replacements will not affect the operation of the low NOx combustors or the selective catalytic reduction emissions control systems. The Project will continue to meet all existing emissions limits established in the existing permits.

- **Section 1769(a)(1)(F) requires a discussion of the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards.**

The proposed modification will not impact the Project's ability to comply with applicable laws, ordinances, regulations, and standards ("LORS").

- **Section 1769(a)(1)(G) requires a discussion of how the modifications affect the public.**

The proposed modification will not adversely affect the public. The proposed modification will not require new construction or other physical changes to the environment, and will not negatively impact air quality or public health. Therefore, there are no significant adverse effects on property owners that will result from the proposed modification.

- **Section 1769(a)(1)(H) requires a list of property owners potentially affected by the modification is required.**

The proposed modification will have no significant environmental effects and will be in compliance with applicable LORS. Therefore no property owners will be affected by the modifications.

- **Section 1769(a)(1)(I) requires a discussion of the potential effect on nearby property owners, the public and the parties in the application proceeding.**

The proposed modification will have no significant environmental effects and will be in compliance with applicable LORS. Therefore, the proposed changes will have no impact on property owners, the public, or any other parties.