

**Minor Modification to a Covered Source
Review Summary**

Application File No.: 0067-12 (Minor Modification)

Permit No.: 0067-01-C

Applicant: Maui Electric Company, Inc.

Facility: Maalaea Generating Station
North Kihei Road, Kihei, Maui
UTM Zone 4: 760,700 m E; 2,302,400 m N (Old Hawaiian Datum)

Mailing Address: Maui Electric Company, Inc.
P.O. Box 398
Kahului, Hawaii 96733

Responsible Official: Mr. John Mauri
Manager, Power Supply
Maui Electric Company
808-442-3900

Point of Contact: Same

Application Date: October 18, 2013

Standard Industrial Classification Code: 4911 Electric Services

Proposed Project:

This application is for a minor modification of Covered Source Permit (CSP) No. 0067-01-C issued on July 28, 2004. A check for \$200.00 was submitted by the applicant for a minor modification of a covered source.

The applicant is proposing the following modifications to the CSP:

1. The installation of bypass dampers to divert the exhaust flow from combustion turbine generators (CTG) M17 and M19 directly to the stack, bypassing the Once Through Steam Generator (OTSG). The bypass dampers will allow the hot exhaust gas from M17 and M19 to flow directly to the stack during operation of the CTG in simple cycle.

The installation of the bypass diverter dampers will not affect the emissions or stack parameters for units M17 and M19. The original equipment manufacturer's guidelines for the OTSG includes time and temperature limits for dry running operations to avoid negative effects on the OTSG. Maui Electric has been curtailing wind energy on the power system to avoid the detrimental impacts to the OTSG from running dry operations. The installation of the bypass diverter dampers will allow Maui Electric to operate in simple cycle mode without the potential for damage to the OTSG.

2. Revisions to the minimum water-to-fuel ratio permit language to clarify how the ratio should be determined during operating hours where multiple minimum water-to-fuel mass ratios

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apply. As the permit is currently written, mathematical deviations can occur during an hour where the CTGs are operated at various loads whereas, during the same time period, the water-to-fuel ratio on a minute-to-minute basis shows compliance with the permit's minimum water-to-fuel ratio.

This modification is considered a minor modification since it:

1. Does not increase the emissions of any air pollutant above the permitted emission limits;
2. Does not result in or increase the emissions of any air pollutant not limited by permit to levels equal to or above:
 - a. 500 pounds per year of a hazardous air pollutant;
 - b. twenty-five percent of significant amounts of emission as defined in section 11-60.1-1, paragraph (1) in the definition of "significant";
 - c. five tons per year of carbon monoxide; or
 - d. two tons per year of each regulated air pollutant other than carbon monoxide;
3. Does not violate any applicable requirement;
4. Does not involve significant changes to existing monitoring requirements or any relaxation or significant change to existing reporting or recordkeeping requirements in the permit. Any change to the existing monitoring, reporting, or recordkeeping requirements that reduces the enforceability of the permit is considered a significant change;
5. Does not require or change a case-by-case determination of an emission limitation or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
6. Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement, and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - a. A federally enforceable emissions cap assumed to avoid classification as a modification pursuant to any provision of Title I of the Act or subchapter 7; and
 - b. An alternative emissions limit approved pursuant to regulations promulgated pursuant to Section 112(i)(5) of the Act or subchapter 9; and
7. Is not a modification pursuant to any provision of Title I of the Act.

Equipment:

The proposed modification only affects combustion turbine generator units M17 and M19.

| Unit ID | Description |
|---------|---|
| M17 | 20 MW nominal rating (24.66 MW peak load) GE LM2500 combustion turbine generator operating in simple or combined cycle mode |
| M19 | 20 MW nominal rating (24.66 MW peak load) GE LM2500 combustion turbine generator operating in simple or combined cycle mode |

Air Pollution Controls:

There are no changes to the air pollution controls previously evaluated for the equipment.

Alternate Operating Scenario:

There are no proposed changes to the alternate operating scenarios of the permit.

Applicable Requirements:

Hawaii Administrative Rules

Chapter 11-59, Ambient Air Quality Standards

Chapter 11-60.1 Air Pollution Control

Subchapter 1, General Requirements

Subchapter 2, General Prohibitions

11-60.1-31 Applicability

11-60.1-32 Visible Emissions

11-60.1-38 Sulfur Oxides from Fuel Combustion

11-60.1-39 Storage of Volatile Organic Compounds

Subchapter 5, Covered Sources

Subchapter 6, Fees for Covered Sources, Noncovered Sources, and Agricultural Burning

11-60.1-111 Definitions

11-60.1-112 General Fee Provisions for Covered Sources

11-60.1-113 Application Fees for Covered Sources

11-60.1-114 Annual Fees for Covered Sources

Subchapter 7, Prevention of Significant Deterioration Review

Subchapter 8, Standards of Performance for Stationary Sources

11-60.1-161 (1) Subpart A, General Provisions

11-60.1-161 (18) Subpart GG, Standards of Performance for Stationary Gas Turbines

Subchapter 9, Hazardous Air Pollutant Sources

Air Emissions Reporting Requirements (AERR)

40 CFR Part 51, Subpart A – Air Emissions Reporting Requirements, is based on the emissions of criteria air pollutants from Type A or Type B point sources (as defined in 40 CFR Part 51, Subpart A), that emit at the AERR triggering levels. As determined in a previous review, the facility emits above the type A triggering levels. Therefore, AERR requirements are applicable.

Non-Applicable Requirements:

Prevention of Significant Deterioration (PSD)

PSD is not applicable because this facility is not a new major stationary source nor does this application propose any modifications that result in a significant net increase in emissions. Therefore, PSD is not applicable.

Best Available Control Technology (BACT)

A Best Available Control Technology (BACT) analysis is required for new covered sources or modifications to covered sources that have the potential to emit or increase emissions above significant levels as defined in HAR § 11-60.1-1. Since this is not a new source nor are any modifications proposed that will cause a significant net increase in emissions, a BACT analysis is not required.

Compliance Assurance Monitoring (CAM)

The applicability of 40 CFR Part 64 is determined on a pollutant specific basis for each affected emission unit. There is no change from the previous review regarding CAM requirements where CAM was determined not to be applicable.

Synthetic Minor Source

Not applicable, the facility is a major source.

Project Emissions:

The proposed modification does not affect emissions from the CTG's. Emissions remain unchanged from the previous review for the facility.

Ambient Air Quality Impact Analysis:

An ambient air quality analysis is not required for the proposed modification. The modification will not result in an increase in emissions and there is no change to the stack parameters that were evaluated in a previous review.

Permit Conditions Affected by the Proposed Modification:

1. Attachment II, Special Condition No. A.1. will be revised to reflect the system having the Once Through Steam Generator rather than the Heat Recovery Steam Generator.
2. Attachment II, Special Condition No. C.3. will be revised to clarify the minimum water-to-fuel ratio that applies during operating hours when the CTG's are operated at various loads.

Conclusion:

The proposed minor modification to Covered Source Permit No. 0067-01-C does not result in an increase in emissions and does not affect the stack parameters that were assessed in the original review. The Department has determined that the facility will continue to operate in compliance with all state and federal regulations. The Department recommends issuance of the permit modification subject to the 45-day EPA review.