

PROPOSED

Issuance Date

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13-E CAB
File No. 0067-01

Mr. John Mauri
Manager, Power Supply
Maui Electric Company, Inc.
P. O. Box 398
Kahului, Hawaii 96733

Dear Mr. Mauri:

**Subject: Amendment to Covered Source Permit (CSP) No. 0067-01-C
Minor Modification Application No. 0067-12
Maalaea Generating Station
Two (2) 20 MW (Nominal) Combustion Turbine Generators (Units M17
and M19) with Two (2) Unfired Heat Recovery Steam Generators,
an 18 MW Steam Turbine (Unit No. M18), and Two (2) Diesel Engine
Generators (Units M5 and M7)
Located at: Maalaea, Maui
Date of Expiration: July 27, 2009
(Expiration date to be revised upon issuance of the
renewal of CSP 0067-01-C)**

In accordance with Hawaii Administrative Rules, Chapter 11-60.1, and pursuant to your application for a minor modification received October 18, 2013, the Department of Health, Clean Air Branch (hereinafter referred to as Department) amends Covered Source Permit (CSP) No. 0067-01-C issued to Maui Electric Company on July 28, 2004.

The following amended permit conditions supersede the corresponding permit conditions of CSP No. 0067-01-C issued on July 28, 2004:

1. Attachment II, Special Condition No. A.1.

1. This permit encompasses the following equipment and associated appurtenances:

Unit No. Description

M5	One 5.6 MW Cooper-Bessemer Diesel Engine Generator, model no. LSV-20-T, 58.8 MMBtu/Hr.
M7	One 5.6 MW Cooper-Bessemer Diesel Engine Generator, model no. LSV-20-T, 58.8 MMBtu/Hr.
M17	One (1) 20 MW Nominal (24.66 MW Peakload) General Electric LM2500 Combustion Turbine Generator (maximum heat input: 275 MMBtu/Hr.) capable of operating in simple (dry) or combined cycle (wet) mode with the exhaust routed through the Once Through Steam Generator (OTSG). Combined cycle operation is defined as when the feed water valve through the OTSG is open.
M18	One (1) 18 MW Steam Turbine Generator and Two (2) Unfired Once Through Steam Generators for Units M17 and M19
M19	One (1) 20 MW Nominal (24.66 MW Peakload) General Electric LM2500 Combustion Turbine Generator (maximum heat input: 275 MMBtu/Hr.) capable of operating in simple (dry) or combined cycle (wet) mode with the exhaust routed through the Once Through Steam Generator (OTSG). Combined cycle operation is defined as when the feed water valve through the OTSG is open.
	One (1) 120 foot high dual flue exhaust stack (8 foot ea. in diameter) for Units M17 and M19

(Auth.: HAR §11-60.1-3)

2. Attachment II, Special Condition No. C.3.

3. Air Pollution Control Equipment

- a. The permittee shall design, install, continuously operate, and maintain a water injection system to meet the emission limits as specified in Special Condition No. C.4. The water injection system shall be fully operational upon start-up of the combustion turbine generators, Units M17 and M19. Water injection shall commence at the end of the "start-up" sequence of the combustion turbine generators. Water injection shall continue until the beginning of the "shut-down" sequence of the combustion turbine generators.

- b. The water injection system shall be used immediately upon completion of the "start-up" sequence, and at all times thereafter when the combustion turbine generators are operating at 25% load (6.165 MW) and above, and, shall be maintained at a minimum water-to-fuel mass ratio, on a one-hour average basis, as follows:

WATER INJECTION SYSTEM MINIMUM WATER-TO-FUEL MASS RATIO BASED ON LOAD:

Combustion Turbine Generator Load (Percent)	Ratio (lb-water/lb-fuel)
Peak Load (24.66 MW)	1.04
75 - < Peak Load (18.495 MW - < 24.66 MW)	0.94
50 - <75 (12.33 MW - < 18.495 MW)	0.87
25 - <50 (6.165 MW - < 12.33 MW)	0.72

For operating hours during which the combustion turbine generator operates at multiple loads where the multiple water-to-fuel mass ratios apply, the applicable water-to-fuel mass ratio shall be determined based on the load that corresponded to the lowest minimum water-to-fuel mass ratio.

- c. The use of an alternative control system other than those specified above is contingent upon receiving the Department of Health's written approval to use such a system and shall not relieve the permittee from the responsibility to meet all emission limitations contained within this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

All other permit conditions of CSP No. 0067-01-C issued on July 28, 2004 shall not be affected and shall remain valid. A receipt for the application filing fee of \$200.00 is enclosed.

If there are any questions regarding these matters, please contact Ms. Catherine Lopez of the Clean Air Branch at (808) 586-4200.

Sincerely,

STUART YAMADA, P.E., CHIEF
Environmental Management Division

CL:
Enclosure

c: Blake Shiigi, EHS - Maui
CAB Monitoring Section