PROPOSED
Reviewed by: CS
May 28, 2004

Renewal to Covered Source Permit No. 0249-02-C Review
Application No. 0249-06

Applicant: Maui Pineapple Company, Ltd.

Equipment Description:

Unit/Stack No.	Description
1,2	Two (2) 1305 kW diesel engine generators (1989 Wartsila Vasa, model 4R32, serial nos. 4222 and 4223, max. fuel input 82.6 gph);
3,4	Two (2) 1970 kW diesel engine generators (1989 Wartsila Vasa, model 6R32, serial nos. 4225 and 4224, max. fuel input 123.4 gph);
5	One (1) 28,000 lb/hr boiler (1954 Foster Wheeler, model B-5313, serial no. 4683, max. heat input 36.7 MMBtu/hr);
6	One (1) 28,000 lb/hr boiler (1954 Foster Wheeler, model B-5312, serial no. 5151, max. heat input 36.7 MMBtu/hr); and
7, 8	Two (2) 40,000 lb/hr boilers (1979 Cleaver Brooks, model DL-52E, serial nos. WL2952 and WL2951 max. heat input 47.5 MMBtu/hr)

* Each unit has its own stack
** All boilers are allowed to burn fuel oil no. 2 and specification used oil.

Equipment Location:

Maui Pineapple Cannery
120 Kane Street
Kahului, Maui, HI 96732

Responsible Official:

Eduardo E. Chenchin
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(808) 877-3351

Point of Contact:

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Mailing Address:

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Proposed Project:

Maui Pineapple Company owns and operates a pineapple cannery which is currently permitted by CSP No. 0249-02-C dated 8/4/98; and amendments dated 3/22/00 and 10/9/00 (0249-01-C dated 5/4/98 was superseded in its entirety due to modifications). The Standard Industrial Classification Code (SICC) is 2033 - Canned Fruits, Vegetables, Preserves, Jams, and Jellies.

Operations will remain unchanged from the latest permit amendment dated 10/9/00. The boilers provide steam for the canning process and the diesel engine generators (DEGs) provide electrical power for the plant as well as for sale to Queen Kaahumanu Shopping Center and Maui Electric Company, Ltd. Basically, there is no changes to the equipment. However, from the last permit review, one of the proposed replacement boilers was found to be inoperable. Therefore, Boiler 6 remain unchanged and only Boilers 7 and 8 were replaced with the Cleaver Brooks as shown in the **Equipment Description** section above. All emissions and modeling results were adjusted accordingly. An explanation was provided in the revision to application dated 3/3/04.

The 61 acre site is bounded by Kane Street on the east, Wakea Road on the south and west, and Kaahumanu Shopping Center on the north. The land is generally level and located within a light industrial and commercial area.

The boilers and DEGs generally operate year round and up to 24 hours a day and 7 days a week.

This review for a Renewal for a Covered Source is based on the application dated 4/26/02 and additional information dated 3/3/04. A receipt for the application filing fee of $3,000.00 was issued by the Department of Health on 5/14/02.

Applicable Requirements:

40 CFR Part 52.21 - Prevention of Significant Deterioration of Air Quality (PSD) is applicable to the DEGs according to the previous terms and conditions that were a part of PSD No. HI 87-02. A new PSD review is not applicable because there is no major modification pursuant to 40 CFR §52.21(b)(2)(i), meaning there will not be a significant net increase in emissions of any pollutant subject to regulation under the Clean Air Act.

Hawaii Administrative Rules (HAR) Chapter 11-59
Hawaii Administrative Rules (HAR) Chapter 11-60.1
- 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

Subchapter 5 - Covered Sources

Subchapter 6 - Fees for Covered Sources
- 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

Consolidated Emissions Reporting Rule (CERR) reporting since the facility potential emissions of NO_x and SO_2 are $\geq$100 tpy, pursuant to Table 1 of 40 CFR Part 51, Subpart A.

Compliance Data System (CDS) inspection because this is a 'Type A Source' (major source).

Non-Applicable Requirements:

40 CFR Parts 61 and 63 - National Emission Standard for Hazardous Air Pollutants (NESHAPS) and Maximum Achievable Control Technology (MACT) since there is no specific source category for boilers and DEGs and the facility is not a major source of hazardous air pollutant (HAP) emissions.

40 CFR Part 60 - New Source Performance Standard (NSPS), specifically D-Dc and Kb since the boilers were installed prior to promulgation of NSPS and all of the petroleum storage tanks store fuel with true vapor pressures less than 3.5 kPa.

Compliance Assurance Monitoring (CAM) is to provide a reasonable assurance that compliance is being achieved with large emissions units that rely on air pollution control device equipment to meet an emissions limit or standard. Pursuant to 40 CFR, Part 64, for CAM to be applicable, the emissions unit must: (1) be located at a major source; (2) be subject to an emissions limit or standard; (3) use a control device to achieve compliance; (4) have potential precontrol emissions that are greater than the major source level [>100 tpy]; and (5) not otherwise be exempt from CAM. CAM is not applicable to the boilers and DEGs since items 2 and 3 do not apply.

A Best Available Control Technology (BACT) analysis is required for new sources or modifications to existing sources that would result in a net significant emissions increase as defined in HAR, Section 11-60.1-1. This is an existing source with no increase in emissions. Therefore, a BACT analysis was not performed.

Insignificant Activities/Exemptions:

Insignificant activities based on size, emission level, or production rate, are as follows (from the CSP application):

Basis for Exemption	Description
HAR §11-60.1-82(f)(1)	The facility contains VOC storage tanks with a capacity less than 40,000 gallons that are not subject to Section 111 or 112 of the CAA: These tanks contain fuel oil no. 2 with volumes of 1,980 and 20,000 gallons; and specification (spec) used oil with volumes of 1,584, 580, 576, 504, 432, and 291 gallons.
HAR §11-60.1-82(f)(7)	The facility contains activities that emit insignificant amounts of air pollutant emissions: 50,000 gallon underground storage tank for fuel oil no. 2; and spray painting of plant equipment and vehicles.

Alternative Operating Scenarios:

The existing alternate scenarios will remain unchanged:

1. Alternative fuels; and
2. Replacing a boiler or DEG with a temporary replacement unit if any repair work reasonably warrants removal.

Project Emissions:

In the previous permit review dated 10/10/00, a comparison (netting evaluation) was made between the average actual air pollutant emissions for the past 2 years versus the new maximum potential air pollutant emissions for all four (4) boilers. The diesel engine generators (DEGs) were not evaluated because they were not affected by the proposed modification. Since Boiler 6 was not replaced with the proposed larger boiler, the net increase should actually be less and the previous review was conservative.

This review will reflect the maximum potential air pollutant emissions for the current installed and operating DEGs and boilers. The details of the emission calculations are shown in **ENCLOSURE 1**.

DEGs

The hourly emissions for the criteria pollutants are the guaranteed maximum by the manufacturer and the hazardous air pollutants (HAPs) emissions were calculated using current US EPA AP-42 emission factors. The annual emissions were calculated assuming the permit limits of 625,000 gal/yr each for DEGs 3 and 4 and a total fuel limit of 1,500,000 gal/yr for all DEGs. Thus, the remaining allowable fuel of 250,000 gal/yr was assumed to be burned by DEGs 1and 2.

Boilers
US EPA AP-42 emission factors were used for fuel oil no. 2 and specification (spec) used oil except for the HAPs that were further reduced by permit limits. To meet state ambient air quality standards (SAAQS) and remain below significant increase in emissions, the total fuel oil and spec used oil limits are 2,000,000 gal/yr and 1,500,000 gal/yr, respectively.

TABLE 1
MAXIMUM POTENTIAL EMISSIONS

POLLUTANT	DEGs NOS. 1 AND 2 (TPY)	DEGs NOS. 3 AND 4 (TPY)	BOILERS NOS. 5 AND 6 (TPY)	BOILERS NOS. 7 AND 8 (TPY)	TOTAL (TPY)
SO_2	6.96	35.20	94.45	incl.	136.61
NO_x	34.80	177.26	20.00	incl.	232.06
CO	1.64	8.16	5.00	incl.	14.80
PM	1.64	8.36	27.23	incl.	37.23
PM_{10}	1.64	8.36	23.34	incl.	33.34
VOC	1.84	8.82	0.89	incl.	11.55
HAPs	0.028	0.138	0.380	incl.	0.545

Notes:
1. The DEG emissions include a total fuel oil no. 2 limit of 1,500,000 gal/yr and 625,000 gal/yr each for DEGs 3 and 4.
2. The boiler emissions include a total fuel oil limit of 2,000,000 gal/yr and spec used oil limit of 1,500,000 gal/yr. The emissions were lumped together since there are no individual operating limits.

Ambient Air Quality Assessment:

A new AAQA is not required for this renewal since there is no proposed change from the previous review which would increase emissions. As mentioned in the **Project Emissions** section, Boiler 6 was not replaced with the proposed larger boiler. Therefore, the previous CSP review and AAQA was conservative.

The previous AAQA included air pollutant concentrations from the three (3) proposed new boilers plus background concentrations only. Generally, existing air pollutant sources that have met SAAQS, such as the DEGs and Boiler 5, are not required to be reviewed again. Please refer to CSP review dated 10/10/00 for details.

Please refer to the initial CSP review dated 12/97 for the AAQA for entire facility.

Other Issues:

A site visit was conducted on May 19, 2004. The facility was in good condition and visible emission observations showed that the opacity was 10% and below. See **ENCLOSURE 2**.

Significant Existing Permit Conditions:

DEGs 1 - 4

1. Maximum 1.5 million gallons total of fuel oil no. 2 in any rolling 12-month period for the combination of the four (4) DEGs to remain below significant levels.
2. Maximum 625,000 gallons of fuel oil no. 2 in any rolling 12-month period for each DEG 3 and 4 to remain below significant levels.
3. Maximum 0.4% sulfur and 0.1% nitrogen by weight because of prevention of significant deterioration (PSD) review.
4. Fuel injection timing retard (FITR) of 2 degrees, turbocharging/intercooling, and low NO_x design because of PSD review.
5. Maximum 23 lb/hr and 35 lb/hr for DEGs 1/2 and 3/4 respectively because of PSD review.

Boilers 5 - 8

1. Maximum 2.0 million gallons total of fuel oil no. 2 and spec used oil in any rolling 12-month period for the combination of the four (4) boilers to remain below significant levels.
2. Maximum 1.5 million gallons of spec used oil in any rolling 12-month period for the combination of the four (4) boilers.to remain below significant levels.
3. A non-resettable fuel meter shall be installed, operated, and maintained to monitor the total fuel consumption for the four (4) boilers.
4. 40% opacity for Boilers 5 and 6 because they were constructed prior to 3/21/72.
5. 20% opacity for Boilers 7 and 8 because of HAR requirements.
6. Maximum 30 ppm of lead for each sample of spec used oil to remain below significant levels.
7. Maximum 0.125 ppm of beryllium for each sample of spec used oil to remain below significant levels.
8. Standard spec used oil constituent limits.
9. Maximum 1% sulfur by weight for each sample of spec used oil to remain below significant levels.
10. Maximum 0.4% sulfur by weight for fuel oil no. 2 because of (PSD) review.

Significant New Permit Conditions:

1. Equipment description will reflect that the existing Boiler 6 was never replaced and is still operating. The proposed replacement Boiler 6 is unusable and will be junked.
2. Mel Hipolito of Maui Pineapple Co. verbally requested to add another supplier of spec used oil - Hawaii Fuel Net.

Conclusion and Recommendation:

In conclusion, the facility complies with all State and Federal laws, rules, regulations, and standards with regards to air pollution. Therefore, a renewal of a CSP for Maui Pineapple Company is recommended based on the information provided in the air permit application and subject to the following:

1. Above special permit conditions;
2. 30-day public review period; and
3. 45-day EPA review period.