

COVERED SOURCE PERMIT APPLICATION REVIEW 0243-01-C

Minor Modification Application No. 0243-04

APPLICANT: Hamakua Energy Partners, LP
Haina Plant
Covered Source Permit (CSP) No. 0243-01-C

LOCATION: 45-300 Lehua Street
Honokaa, HI 96727

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SIC CODE: 4911 (Electrical Power Generation)

PROPOSED PROJECT:

This minor modification application requests the removal of Attachment II, Special Condition 1.g, which limits the operating mode of the of the combustion turbines. The condition is:

“Except for maintenance, equipment breakdown, or other reasonable problems that may occur during combined-cycle operation, the combustion turbine(s) shall not operate in simple-cycle once the conversion to combined-cycle has been completed. If Hamakua Energy Partners, LP, plans to operate the turbine(s) in simple-cycle, the Department shall be notified of the reason for operating in simple-cycle, and the date of operation in simple-cycle and proposed date to operate in combined-cycle.”

When the facility was initially constructed, it was operated as a simple cycle unit, and was eventually converted to combined cycle. The primary difference for Hamakua Energy Partners between operating in combined cycle and simple cycle is that in combined cycle steam is routed to the steam generator to generate electricity, while in simple cycle the steam turbine is bypassed and steam proceeds directly to the condenser. Exhaust gases are routed to the Heat Recovery Steam Generators (HRSG) and the selective catalytic reactor (SCR). while operating in either simple cycle or combined cycle.

Due to the fact that the exhaust gases are routed through the HRSG and SCR for both combined cycle and simple cycle operation, there are no differences in emissions or stack parameters between combined cycle and simple cycle operation. Therefore, allowing the turbines to operate in either simple-cycle or combined cycle will not impact annual emissions or stack parameters for the facility.

Verification of the stack parameters was confirmed by conducting a source performance test on the combustion turbines while operating in simple cycle mode. The tests indicated that the stack emission parameters do not change, and also demonstrated compliance with permitted emission limits.

Pursuant to Hawaii Administrative Rules (HAR), Chapter 11-60.1-81, the requested modification is classified as a minor modification. A “minor modification” is defined to be a modification that:

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 (25) percent of significant amounts of emission as defined in Section 11-60.1-1, paragraph (1) in the definition of "significant";
 - c. five (5) tons per year of carbon monoxide; or
 - d. two (2) 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 Clean Air Act or HAR, Chapter 11-60.1, 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 Clean Air Act.

The removal of the permit condition changes the existing monitoring, reporting or recordkeeping requirements. However, the change isn't significant and doesn't reduce the enforceability of the permit. The notification requirement is not considered significant because the permittee is not required to obtain written approval prior to switching from combined cycle to simple cycle. The enforceability of the permit is not affected since the permitted emission limits do not depend on the operational mode, and because the facility's operational mode (simple or combined cycle) has no effect on the permitted emission limits.

Permit Amendment

The amendment to the permit as a result of the modification is:

Attachment II, Special Condition 1.g, which reads:

g. Combined-Cycle Mode

Except for maintenance, equipment breakdown, or other reasonable problems that may occur during combined-cycle operation, the combustion turbine(s) shall not operate in simple-cycle once the conversion to combined-cycle has been completed. If Hamakua Energy Partners, LP, plans to operate the turbine(s) in simple-cycle, the Department of Health, Clean Air Branch (Department), shall be notified of the reason for operating in simple-cycle, and the date of operation in simple-cycle and proposed date to operate in combined-cycle.

is no longer a valid permit condition.

CONCLUSION:

The proposed permit modification does not violate State or Federal Ambient Air Quality Standards. Recommend approval of minor modification subject to EPA 45-day review.

Kevin Kihara
December 4, 2013