

**HONEYWELL ENGINES**  
**TITLE V PERMIT MODIFICATION FOR THE BSVE SYSTEM**

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**Preliminary EPA Comments**  
**September 25, 2007**

(Revised September 27, 2007)

**A. Permit**

1. Alternative Operating Scenarios

We understand that ADEQ has requested that performance tests be conducted annually under operating scenarios 1, 2, and 3 (see comments from Phillip McNeely). We would also like to see testing performed annually and that additional testing be performed when Honeywell switches operating scenarios to ensure that the equipment is operating as expected and that desired control efficiencies and emissions limits are being achieved.

2. Operations and Maintenance Plans

The permit must incorporate the substantive terms and conditions of the most recent O&M plan. As discussed with Maricopa in previous permitting cases, any O&M plan parameter that requires source testing to establish or change must be incorporated into the permit. Any changes to these parameters must be incorporated into the permit as a significant revision. Such parameters are directly related to the source's ability to achieve established emission limitations, as well as to the ability of the source, the permitting authority, EPA, and the public to monitor for compliance with the emission limits.

3. Thermal Oxidizer

Note 6 under Condition 34.B.1 states that VOC emissions shall be calculated based on a control efficiency of 99% for the thermal oxidizer. Condition 34.E requires an initial performance test to demonstrate the 99% control efficiency at a minimum temperature of 1400 degrees F, and repeat tests once every 5 years so long as the 99% control efficiency is demonstrated. AOS 1, 2, and 3 (see, for example, Condition 34.F.2.a) require that the oxidizer be operated and maintained in accordance with the most recently approved O&M plan. The current O&M plan requires operating temperatures between 1400 and 1800 degrees F. Additionally, Honeywell is required to monitor and continuously record temperature and flow (see, for example, Condition 34.F.2.b).

- i. The permit should specifically require a 99% control efficiency if the calculations are to be based on a 99% control efficiency.

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- ii. The permit should require that the oxidizer be operated at or above the set temperature during the most recent performance test demonstrating compliance with the 99% control efficiency. Condition 34.E.1.a.i. states that testing must be done “at a minimum combustion chamber temperature of 1400 °F.” Thus, it appears that testing could be conducted at somewhere above 1400 °F, but, per the oxidizer operating conditions, could operate somewhere below that testing temperature so long as it is above 1400 °F. Again, the permit must require that the oxidizer operate at a temperature above the testing temperature to ensure that the demonstrated efficiency is met at all times.
  
- iii. It is unclear how the temperature range of 1400 °F-1800 °F was decided upon. It is our understanding that dioxin formation levels off at around 1500 °F, and, after that point, dioxin formation is not expected to increase as a function of increasing temperature. At the same time, VOC destruction efficiency increases as a function of increasing temperature. According to EPA’s air pollution control technology fact sheet for thermal incinerators, available on EPA’s Clean Air Technology Center website, to achieve a 98% control efficiency for halogenated VOC streams, a combustion temperature of 2000 °F and a 1 second residence time is recommended, along with an acid gas scrubber on the outlet. Please clarify why the temperature range provided in the current permit is so much lower than the range recommended above, and provide an explanation as to why there is an upper limit on the temperature (1800 °F).
  
- iv. Per the recommendation cited above, we would also like to see an explanation of how an adequate residence time will be ensured. We understand that residence time is a function of combustion chamber volume (a design factor) and air flow through the chamber. Please explain the variability in air flow that can be expected for this SVE process and how any variability will be controlled to ensure adequate residence time. We note that the permit requires monitoring of flow to the oxidizer and request a discussion of whether it is appropriate to indicate a flow range that will ensure proper residence time, as an enforceable operating parameter.
  
- v. If, per above, air flow is expected to vary over the course of the SVE process, please also explain why a performance test once every 5 years is adequate to ensure that the control efficiency remains at or above 99%.

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- vi. The permit requires that Permittee “measure and continuously record” temperature and flow for the oxidizer. Please modify these conditions to require that the Permittee “continuously measure and record” these parameters.
  
- 4. Condition 34.D.1. states that the Permittee “shall submit reports of all monitoring, recordkeeping, and testing activities as required by the permit.” Please clarify whether this should read that all monitoring recordkeeping and testing activities required by the permit must be reported, or whether this condition is simply saying that the Permittee must submit reports that are required elsewhere in the permit.
  
- 5. Caustic Scrubber
  - i. The permit specifies several operating parameters for the caustic scrubber but does not require that these parameters be correlated with any of the required performance tests. The permit should require that the operating parameters should be related to the operating parameters established during the most recent performance test.
  
  - ii. The monitoring and recordkeeping requirements for the caustic scrubber do not specify time frames for monitoring. Please add a requirement for continuous monitoring, or justify some other time period if appropriate.
  
- 6. VGAC Units

Like the caustic scrubber conditions, the operating parameters for the VGAC units are not correlated back to performance test parameters. The permit should require that the operating parameters should be related to the operating parameters established during the most recent performance test.

**B. Technical Support Document/Statement of Basis/AAQIR**

1. Construction Permits

Maricopa issues combined title V and NSR permits, under a “unitary” program. The regulatory context for this particular permit action should be clearly and explicitly documented in the TSD, preferably at the outset. Currently, there is a very short discussion of the regulatory context towards the end of the TSD (page 30). This discussion states: “The proposed project is a significant permit revision to the Title V permit, as the changes involve, among other items, changes in

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record keeping and reporting. The proposed project is not a major modification, as there are no significant increases in emissions associated with the changes.” First, this write up only alludes to construction permitting requirements by using the term “major modification.” Please expand this discussion to clarify what type of permit Honeywell already has and how this project fits into that regulatory context.

2. NSPS Applicability

On the same page, the TSD states that NSPS requirements apply to facilities constructed after the effective date of each regulation, and “thus do not apply to this project.” The BSVE system will be new equipment. Please revise this discussion of NSPS applicability to reflect this fact and provide a clear understanding of NSPS applicability.

3. Compliance History

EPA’s Part 70 regulations require a compliance schedule for “applicable requirements for sources that are not in compliance with those requirements at the time of permit issuance.” 40 CFR §§70.6(c)(3), 70.5(c)(8)(iii)(C). Consistent with these requirements, EPA has stated that a compliance schedule is not necessary if a violation is intermittent, not on-going, and has been corrected before the permit is issued. *See In the Matter of New York Organic Fertilizer Company*, Petition Number II-2002-12 at 47-49 (May 24, 2004).

EPA has also stated that the permitting authority has discretion not to include in the permit a compliance schedule where there is a pending enforcement action that is expected to result in a compliance schedule (i.e., through a consent order or court adjudication) for which the permit will be eventually reopened. *See In the Matter of Huntley Generating Station*, Petition Number II-2002-01, at 4-5 (July 31, 2003); see also *In the Matter of Dunkirk Power, LLC*, Petition Number II-2002-02, at 4-5 (July 31, 2003).

On March 15, 2005, EPA granted petitions to object to the issuance of the title V permits for the Tesoro and Valero refineries in the San Francisco Bay Area on the issue of multiple NOV’s (*See In the Matter of Tesoro Refining and Marketing Co.*, Petition Number IX-2004-06, at 14-16, and *In the Matter of Valero Refining Company*, Petition Number IX-2004-07, at 14-17). In requiring the District to reopen the permits to either incorporate compliance schedules in the permits or to provide a more complete explanation for its decision not to do so, the EPA Administrator states:

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*The District's statements in the permitting record...create the impression that no NOVs were pending [at the time of permit issuance]. Although the District acknowledges that there have been "recent violations," the District fails to address the fact that it had issued a significant number of NOVs to the facility and that many of the issued NOVs were still pending. Moreover, the District provides only a conclusory statement that there are no ongoing or recurring problems that could be addressed with a compliance schedule and offers no explanation for this determination. The District's statements give no indication that it actually reviewed the circumstances underlying recently issued NOVs to determine whether a compliance schedule was necessary. The District's mostly generic statements as to the refinery's compliance status are not adequate to support the District's decision that no compliance schedule was necessary in light of the NOVs.*

It is our understanding that Honeywell has been issued several notices of violation in the recent past, many still pending. In order for the permit to be in compliance with title V (40 CFR §§70.6(c)(3), 70.5(c)(8)(iii)(C)), and to be consistent with previous guidance, the TSD must discuss the need for a compliance schedule for any outstanding NOVs at time of permit issuance; if a compliance schedule for outstanding NOVs is not needed, then the statement of basis should clearly discuss why no compliance schedule is needed. Additionally, Maricopa should analyze the NOVs to determine whether there is a pattern of recurring noncompliance that should be addressed with a compliance schedule. As with outstanding NOVs, any conclusion that no compliance schedule is necessary should be documented in the statement of basis.