



Maricopa County

Air Quality Department

November 30, 2007

Office of the Director
1001 North Central Avenue
Suite #500
Phoenix, Arizona 85004
602-506-6443 – desk
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Subject: Honeywell Engines, Systems and Services – Proposed Revisions to Title V Permit V97008, Biologically Enhanced Soil Vapor Extraction System, Response to Public Comments

Dear Sir or Madam:

This letter is being sent to you because of your participation in the public hearing process. The Department has processed the following application to renew the Significant Revision to the Title V Air Quality Permit:

- Honeywell Engines, Systems and Services – Proposed Revisions to Title V Permit V97008

The public was invited to submit comments regarding the revision of this permit, including a public hearing held on May 31, 2007. This allowed for interested citizens to comment on the renewal of the proposed permit. The deadline for written comments was June 6, 2007.

We appreciate the interest and concern expressed by the citizens of Maricopa County in helping to ensure that each permit issued by the Department meets all legal requirements. We have carefully evaluated the comments received and have prepared written responses. A copy of these comments and the Department's responses is attached.

After careful consideration of all of the factors involved, the Department wishes to notify you of our decision to approve the revision to the Title V Air Quality Permit for Honeywell Engines, Systems and Services.

All permit actions may be appealed under Arizona Revised Statutes Chapter 3, Article 3, Section 482. Please contact Douglas Erwin at 602-372-3033 if you have any questions about the appeal process.

The United States Environmental Protection Agency (USEPA) receives public petitions associated with Title V permit actions. Public petitions to the USEPA are to be directed to: Mr. Steve Johnson, Administrator, Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20460. For this permit action, a petition must be submitted by December 11, 2007. The following website contains a document that explains the public review process, the USEPA review process, and the petition process:

<http://epa.gov/oar/oaqps/permits/partic/proof.html>.

PUBLIC HEARING RESPONSIVENESS SUMMARY
Public Hearing for Honeywell (V97008) – June 22, 2007

If you have any questions on USEPA's review of the permit or on the USEPA public petition process you may contact Kathleen Stewart with the USEPA Air Permits Office at (415) 947-4119, or stewart.kathleen@epa.gov.

I would like to thank you again for your interest in matters affecting Maricopa County's air quality. If you have any questions regarding this letter or the attached responses, please contact my office at (602) 506-6443.

Sincerely,

Robert Kard, Director
Maricopa County Air Quality Department

cc: Doug Erwin, Permitting Division Manager
File

Enclosures

**Response to USEPA and Public Comments
Proposed Revision to Air Quality Permit
For Biologically Enhanced Soil Vapor Extraction (BSVE) System
Honeywell Engines, Systems & Services
Permit Number V97008**

Public comments for the proposed addition to Honeywell's Title V Permit (V97008) were received by the Maricopa County Air Quality Department (MCAQD) in written form and from the public hearing. Comments have been directly transcribed from the written comments and the public hearing transcript to ensure that the original meaning of the commenter is preserved. Comments from the USEPA were received and have been addressed in this document.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 1	On page 1, item A, number 4, the air injection flow rate shall not exceed 2,650 standard feet per minute during Alternate Operating Scenarios (AOS) 1, 2, and 3. The requirement should be modified to state the air injection flow rate shall not exceed 50% of the rate of the extraction airflow.
Response 1 34.A.4	The permit has been revised to include the limitation that the injection flow rate shall not exceed the extraction flow rate when operating in AOS-1, AOS-2, or AOS-3. The permit was also revised to include maximum injection flow rates under the five operating scenarios. Under AOS 4 & 5, injection versus extraction limit does not apply because when AOS-4 or 5 can be implemented, the soil vapor concentrations are very low, and in order for the system to continue to function as a biologic enhancement, additional injection air may be needed. After careful review, MCAQD determined that the 50% restriction proposed by the commenter is not required for the facility to meet emission standards and will unnecessarily restrict the efficiency of the clean-up effort.
Comment 2	On page 3, note 6, the thermal oxidizer has a required efficiency of 99%, and the granular activated carbon has a required efficiency of 70%. During Alternate Operating Scenarios 4 and 5, with the thermal oxidizer offline, will the GAC efficiency requirement remain at 70%?
Response 2 34.B.1 Note 6 34.E.1.b.ii 34.I.1.f 34.J.1.f	Page 3 Note 6 of the air quality permit refers only to the calculation of annual volatile organic compound (VOC) emissions. When operating in AOS-1, -2, and -3, the oxidizer is required to have a minimum destruction of 99%. However, when operating in AOS-4 and AOS-5, the oxidizer is not required and the 90% VOC removal efficiency must be achieved through the vapor-phase granular activated carbon (VGAC) and potassium permanganate adsorber (PPA) units. Therefore, the permit requires a third VGAC unit to be installed on the BSVE system when operating in AOS-4 and AOS-5. The permit was revised to include the 90% VOC removal efficiency for the BSVE system and calculation methodology for VOC emissions, using the most recent performance test, when operating in AOS-4 and AOS-5.

WRITTEN COMMENTS

Comment #	Comments/Responses
<p>Comment 3</p>	<p>In all the Alternate Operating Scenarios, the change out criteria for the granular activated carbon canisters is based on the benzene concentration between the first and second unit. Change out criteria should be developed for total volatile organic compounds (VOCs) or hazardous air pollutants (HAPS), as appropriate.</p>
<p>Response 3</p> <p>34.F.4.a.iv 34.G.4.a.iv 34.H.4.a.iv 34.I.2.a.iv 34.J.2.a.iv</p> <p>34.F.4.b.i, vii 34.F.5.b.iii 34.G.4.b.i, vii 34.G.5.b.iii 34.H.4.b.i, vii 34.I.2.b.i, vii 34.I.3.b.iii 34.J.2.b.i, vii</p>	<p>The change-out of VGAC units is based on benzene concentrations because benzene was determined to be the VOC and HAP with the modeled concentration closest to the Arizona Ambient Air Quality Guidelines (AAAQGs). (The modeled vinyl chloride concentration is closer to the AAAQG; however, the PPA vessels are the chosen technology to remove the vinyl chloride.) In addition to the change-out required due to the benzene concentration, the permit was revised to require the first VGAC vessel to be changed out when the outlet VOC mass flow rate of the first VGAC vessel reaches the VOC lb/hr permit limit included in Table 34-1 of the permit. The VOC lb/hr permit limit is still protected from being exceeded by the subsequent VGAC vessels and the PPA vessels, which will remove additional VOCs. The permit was also revised to include the use of the VOC monitoring and mass flow rate calculations, based on the monitoring, to determine the vessel change-out and recordkeeping requirements were added to document each change-out event.</p>
<p>Comment 4</p>	<p>Table 34-1 lists an emission standard for VOCs and Total Hazardous Air Pollutants, however, the permit does not list the specific VOC or HAP compounds. These contaminants should be listed either in the permit or in the operational and maintenance plan.</p>
<p>Response 4</p> <p>34.C.4 34.E.3.a.i</p>	<p>The specific VOC and HAP compounds of concern are listed separately in Table 34-1: HF plus HCl; vinyl chloride; benzene; and dioxins/furans. The permit has been revised to require the Permittee to include the list of speciated VOCs for Method 25A in the Operation and Maintenance Plan as requested, and minimum list of VOCs has been included in the permit (Table 34-2). The minimum list of VOCs which was taken from Table 4-1 in the Final Focused Remedial Investigation (Final FRI) Report.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 5	On page 3, item C, number 2 requires records retention for five years. Records should be retained for a longer period of time and at least until the BSVE system is decommissioned and a site closure letter is issued by ADEQ.
Response 5 34.C.2	MCAQD Rules specify that records must be retained for at least five years. Other agencies may request a longer record retention time as part of their permitting procedures. The permit was revised to require records retention for at least 5 years or until site closure is issued by ADEQ, whichever is later. The permit was also revised to allow the Permittee to store records that are older than 5 years off-site.
Comment 6	On page 4, item C, number 4 requires the vapor extraction wells to be monitored at least annually for benzene, TPH, and vinyl chloride. This monitoring should include the entire VOC list and at a minimum the chemicals of concern for the Motorola 52nd Street National Priorities List site.
Response 6 34.C.4 34.E.3.a.i	The permit has been revised to require monitoring for VOCs and speciated VOCs as requested. Refer to Response 4 for additional discussion.
Comment 7	On page 6, item E, number 1, b. requires performance tests every two years for VOCs, HCL and HF, and every one to four years for dioxin and furan during the alternate operating mode 1, 2, and 3. ADEQ recommends performance tests annually for all contaminants during Alternate Operating Scenarios 1, 2, and 3.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 7 34.E.1.b.ii, iv, v, vii, viii	The permit has been revised to include annual testing for VOCs, HCL and HF during Alternate Operating Scenarios 1, 2, and 3. The permit was also revised to include annual testing for dioxins/furans for the first two years and tiered performance testing after the first two years to require more frequent testing if the initial testing shows concentrations above a threshold. Under the tiered approach, annual dioxin/furan performance tests will be required if the previous performance test result is greater than 80% of the emission limit, biannual dioxin/furan performance tests will be required if the previous performance test result is between 50% and 80% of the emission limit, and dioxin/furan performance tests will be required every four years if the previous performance test result is less than 50% of the emission limit.
Comment 8	Page 7, item E, number 3 list EPA Test Methods 18, 23, 25, 25A, 26, and 26A. Please verify that these are appropriate EPA methods that quantify the chemicals of interest.
Response 8 34.E.3.a.i	MCAQD compliance staff reviewed these listed methods. Permit Section 34.E.3.a.i has been updated to require Method 25A to provide detailed speciation of VOC compounds.
Comment 9	Under Alternate Operating Scenarios 3 and 5, the potassium permanganate can be removed at specific vinyl chloride trigger levels. It is recommended that the potassium permanganate remain on the treatment system until the vinyl chloride influent levels are below method reporting level.
Response 9 34.H.1.b, c 34.J.1.b.iii, iv	The inlet concentration level specified to allow for removal of the PPA units was determined through conservative calculation of the potential concentrations that could result from the removal of the PPA units and the resultant ambient air quality impact with respect to the AAAQGs. The EPA Method TO-15 reporting limit is below the specific vinyl chloride trigger levels. Therefore, as requested, the permit was revised to require that the potassium permanganate control system remain until the vinyl chloride influent levels are below EPA Method TO-15 reporting limit for at least three monitoring events.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 10	This site fails to be fully characterized for VOC's, benzene, Jet Fuel, and should include multiple sampling during this extraction process.
Response 10 34.C.5	The existing soil vapor extraction wells have been monitored for several years, and a pilot test was conducted for the proposed BSVE system. Those results are available in reports, and the soil vapor extraction well concentrations are summarized in the Technical Support Document (TSD) associated with this permit revision. As far as potential emissions, the data provided in the Title V permit application are very extensive and do characterize potential emissions of regulated air pollutants. As the commenter suggests, the permit includes multiple sampling during the extraction process. It requires all vapor extraction wells to be tested annually to determine the concentration of VOCs, benzene, and total petroleum hydrocarbons (TPH), in addition to other compounds from the Final Focused Remedial Investigation report. A permit condition (Permit Condition 34.C.5) was added to require monthly sampling of TPH, benzene and vinyl chloride.
Comment 11	Honeywell should be required to have an independent testing oversight on VOC's to include Dioxin, Furans and Hydrocarbons during the entire process as long as this system is in place and operational. Some monitors/testing should be done outside of Honeywell Facility for hazardous pollutants.
Response 11	The permit was revised to include more frequent testing. The MCAQD compliance division approves all test protocols, witnesses tests, and verifies test results. Rather than monitoring or testing for hazardous air pollutants outside of the Honeywell facility, MCAQD has including monitoring and testing requirements that apply to the exhaust of the BSVE system.
Comment 12	Hazardous pollutants for this vapor extraction to this date have not been fully Characterized.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 12	<p>As mentioned earlier, the existing soil vapor extraction wells have been monitored for several years, and a pilot test was conducted for the proposed BSVE system. MCAQD believes that the potential emissions of hazardous air pollutants (HAPs) are fully characterized. Refer also to Response 10.</p>
Comment 13	This site is on the 52 St. Motorola Superfund area. Honeywell has contributed to VOC Groundwater contamination. This soil vapor extraction will have an impact to Groundwater Table in this area where VOC's are currently located.
Response 13	<p>The BSVE system that is the subject of this Title V air quality permit significant revision will only involve extraction of soil vapors. Refer to the attached letter from the Arizona Department of Environmental Quality (ADEQ) for additional discussion. MCAQD does not have authority over groundwater contamination issues.</p>
Comment 14	What changes or requested changes were made to the modeling? This should have been made available to the public for review prior to the hearing. We request a copy of any modeling changes. We also request an extension of the deadline for comments until these changes are made available to the public and time is allowed for comments.
Response 14	<p>New modeling specifically for the proposed BSVE system that is the subject of this Title V air quality permit significant revision was included in the permit application. The original modeling did not adequately address short term emissions, and thus the modeling was revised and re-submitted and is part of the public record and permit application. The results of the modeling are summarized in Section 6 of the TSD. The MCAQD air quality modeler has also reviewed the analysis and found that the modeling results summarized in the TSD are more conservative than required for typical air quality modeling. The application and TSD were both available for inspection prior to the hearing. An extension of the comment period deadline is, therefore, not warranted.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 15	Unless there is a valid explanation for the modeling results, this permit should be denied and reopened for cause.
Response 15	The modeling submitted with the permit application and requested revisions are part of the public record and permit application. The results of the modeling are summarized in Section 6 of the TSD. The modeling results summarized in Section 6 of the TSD were also reviewed by the MCAQD dispersion modeler and found to be valid.
Comment 16	The carbon monoxide (CO) data for 1 hour and 8 hours are the same for two scenarios. (Table 6-2)
Response 16 TSD	The Technical Support Document (TSD) Table 6-2 has been corrected (refer to Response 19). The modeled CO concentrations from the facility (not including background) are as follows: AOS-1 <ul style="list-style-type: none">• 20 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) 1-hour average• 9.5 $\mu\text{g}/\text{m}^3$ 8-hour average AOS-2 <ul style="list-style-type: none">• 23 $\mu\text{g}/\text{m}^3$ 1-hour average• 13 $\mu\text{g}/\text{m}^3$ 8-hour average Adding the background concentration, the result is well below CO National Ambient Air Quality Standard (NAAQS).
Comment 17	The ground level concentrations diminish with time. If one hour of operations produces a certain emission level (for example in Table 6-4 for Benzene), then one would expect that 24hours of continuous burning, of the recovered fuel mix, would produce a significantly higher pollution level for that period and the same situation for 365 days later. The pollution for one year would definitely be more than for one hour! (Tables 6-3 and 6-4)

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 17	<p>The ISCST3 dispersion model was used for this analysis. The concentrations calculated at any point in space (i.e., modeled receptor locations) can have drastic variations based on the transport wind direction and other factors which determine how any source of emissions will be dispersed in the atmosphere. Each hour produces different ground level concentrations at various downwind locations. For some hours, certain receptors will have very high concentrations and for other hours the concentrations will be zero at the same receptors since the winds transporting the emissions do not blow toward the same location. The model output for ISCST3 summarizes maximum modeled 1-hour concentration at every modeled receptor location over an entire year. ISCST3 calculates the sum total for the hourly concentrations over an entire year at each receptor location and then calculates the numerical average over 8760 hours in a year.</p>
Comment 18	The derivation of background levels to add to the ground level modeled concentration is questionable. Why can't the Network monitors in this area be used? (Table 6-2)
Response 18	<p>Maximum modeled criteria pollutant impacts for the proposed source are below applicable Significant Impact Levels (SILs); therefore, emissions from the proposed background concentrations are not relevant for demonstrating NAAQS compliance.</p>
Comment 19	If the PM10 background is already 185 ug/m3, you can't add pollution to that without being in violation. This whole valley is in non-compliance for PM10. YOU CAN'T ALLOW ILLEGAL PROCEDURES. This permit should be denied. (Table 6-2)

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 19 TSD	Regulatory authority for ensuring compliance with the NAAQS in the non-attainment area is granted under 40 CFR 51.160 (Subpart I – Review of New Sources and Modifications). Under this authority, Significant Impact Levels (SILs) promulgated by the USEPA are used to evaluate whether the proposed source will cause a NAAQS violation or contribute significantly to an existing NAAQS violation. The 24-hour PM10 SIL is 5 µg/m ³ and the highest modeled impact of the BSVE (for AOS-2) is 0.52 µg/m ³ . Note that EPA has revoked the annual PM10 standard.
Comment 20	Modeling is not an accurate method of determining emission compliance. To say emissions are 85% of the annual limit is really raising a red flag. There could be as much as 20% error.
Response 20	<p>Modeling is not used to determine emission compliance but is instead one tool that is used to evaluate the estimated emission rates from a facility. Source emissions testing and additional operational monitoring and operational limitations are used to determine emission compliance.</p> <p>The emission estimates that were modeled included a combination of numerous conservative assumptions that were made to generate a worst-case scenario. The emission limits are then based on the worst-case scenario. Modeling is designed to verify the worst-case emissions do not exceed the NAAQS or AAAQGs. While it is impossible to verify the modeled results with actual site field results during the permitting process, the modeling methodology used for this BSVE permit application is the EPA approved methodology required for all MCAQD Title V permits. Refer also to Response 98.</p>
Comment 21	Cumulative modeling should be required because the value of PM10 derived is 1.8 ug/m3 which is more than the significant level of 1ug/m3.

WRITTEN COMMENTS

Comment #	Comments/Responses																		
Response 21	<p>The commenter refers to the annual average PM10 significant impact level of 1 µg/m³. The USEPA has revoked the annual PM10 standard and therefore the annual significant impact level is no longer applicable. In any case, Table 6-2 did contain typographical errors and has been corrected. The highest annual PM10 impact determined through modeling was 0.08 µg/m³ which would be less than the annual PM10 significant impact level if it were still in effect.</p>																		
Comment 22	<p>Different flow rates produce different emission dispersion concentrations. Where are the hot spots from modeling for scenarios 1 and 2 and 1 and 2 combined? Are there significant Emission levels?</p>																		
Response 22	<p>Different flow rates will produce different concentrations at different receptor locations downwind of the source. The modeled pollutant concentrations are designed to represent the highest pollutant concentration (i.e., “hot spot”) for AOS-1 and AOS-2. Analyzing the combined emission rates from AOS-1 and AOS-2 is not appropriate since these two operating scenarios will not occur at the same time.</p> <p>The definition of “significant” as related to the potential of a source to emit is included in Rule 100 of Maricopa County Air Pollution Control Regulations. The table below compares the BSVE emission rates to the significant emission rate:</p> <table border="1" data-bbox="548 1335 1395 1633"> <thead> <tr> <th data-bbox="548 1335 691 1398">Pollutant</th> <th data-bbox="691 1335 1036 1398">Permitted Emission Rate (ton/year)</th> <th data-bbox="1036 1335 1395 1398">Significant Emission Rate (ton/year)</th> </tr> </thead> <tbody> <tr> <td data-bbox="548 1398 691 1444">VOC</td> <td data-bbox="691 1398 1036 1444">6.52</td> <td data-bbox="1036 1398 1395 1444">40</td> </tr> <tr> <td data-bbox="548 1444 691 1491">NOx</td> <td data-bbox="691 1444 1036 1491">3.86</td> <td data-bbox="1036 1444 1395 1491">40</td> </tr> <tr> <td data-bbox="548 1491 691 1537">CO</td> <td data-bbox="691 1491 1036 1537">3.24</td> <td data-bbox="1036 1491 1395 1537">100</td> </tr> <tr> <td data-bbox="548 1537 691 1583">SO2</td> <td data-bbox="691 1537 1036 1583">1.75</td> <td data-bbox="1036 1537 1395 1583">40</td> </tr> <tr> <td data-bbox="548 1583 691 1633">PM10</td> <td data-bbox="691 1583 1036 1633">0.29</td> <td data-bbox="1036 1583 1395 1633">15</td> </tr> </tbody> </table>	Pollutant	Permitted Emission Rate (ton/year)	Significant Emission Rate (ton/year)	VOC	6.52	40	NOx	3.86	40	CO	3.24	100	SO2	1.75	40	PM10	0.29	15
Pollutant	Permitted Emission Rate (ton/year)	Significant Emission Rate (ton/year)																	
VOC	6.52	40																	
NOx	3.86	40																	
CO	3.24	100																	
SO2	1.75	40																	
PM10	0.29	15																	

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 23	Since VOC's were not modeled, a network of monitors should be placed all around this plant to measure VOC's. The public health should be protected.
Response 23	The emissions monitoring requirements on the BSVE system were designed to protect the public health. VOCs are not modeled in a combined manner. Rather individual VOC species that have been previously reported in the well vapor samples were modeled. Based on the modeling results, the individual VOC emission estimates will be below the AAAQGs. Therefore, rather than monitoring pollutant concentrations in the ambient air, MCAQD requires monitoring and testing of the exhaust to verify the individual VOC emissions do not exceed the emissions that were used for the modeling. Refer to also Response 98.
Comment 24	How do you know how large the contamination plume is? How do you know that it's not causing a problem with the water supply?
Response 24	MCAQD has authority over only the air quality aspects of this project. Please contact the ADEQ for additional information. Also, refer to the attached letter from the ADEQ for additional discussion.
Comment 25	What are the current permit pollution limits? Specify. Why isn't Pm2.5 included?
Response 25	The emission limits for the BSVE system that is the subject of this Title V air quality permit significant revision are included in Table 34-1 of the permit revision. PM2.5 is a part of PM10 and therefore is included even though it is not specified as a separate emission limit.
Comment 26	How many gallons of polluted water will be processed? Does "free product" mean JP4 fuel? How have you been able to separate it from other contaminants and water?

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 26	The proposed BSVE system that is the subject of this Title V air quality permit significant revision does not involve treatment of groundwater. "Free product" refers to a mixture of JP4, Jet A and other fuel with less than one percent of chlorinated solvents. The proposed system involves extracting vapors from the ground. Therefore, separation is not needed since liquid is not extracted. Please refer to the attached letter from ADEQ for additional discussion.
Comment 27	Can particulate pollution form downstream from the stack emissions? Has this been calculated and taken into account?
Response 27	There is the possibility of gas – to – particle conversion downstream of the stack emissions; however, the formation of particulate matter downstream from the stack is expected to be negligible.
Comment 28	How are you going to verify the efficiency of the thermal oxidizer with respect to removal of the VOC's?
Response 28	Performance testing requirements for the VOC destruction efficiency of the thermal oxidizer are included on page 5, Section E 1 of the proposed addition to the permit. The efficiency is determined by testing the inlet pollutant rate and the outlet pollutant emission rate. This type of test will allow MCAQD to determine whether the efficiency requirement for the thermal oxidizer is met. The performance testing must follow the referenced protocol and will be observed by MCAQD compliance staff.
Comment 29	It is not clear what chemical pollutants are involved and how they are removed during scenarios 4 and 5 when there is no combustion. How much of the pollutants are removed? Specify.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 29	<p>The same pollutants are involved in all scenarios. However AOS-4 and AOS-5 reflect much lower inlet pollutant concentrations. Alternate Operating Scenarios 4 and 5 can only be used if the soil vapor concentrations from all extraction wells are low enough to meet the requirements spelled out in Conditions 34.I.1 and 34.J.1 of the permit revision. Because the inlet concentrations under AOS-4 and AOS-5 are much lower than the estimated initial inlet concentrations, operation of the thermal oxidizer is not necessary to meet the stack emission limits from Table 34-1. The PPA and VGAC units will still be required on the BSVE system under AOS-4 to remove pollutants. Under AOS-5 the VGAC units will still be required.</p> <p>The PPA units are designed to remove vinyl chloride but will remove other chlorinated solvents as well as VOCs. Information from manufacturers indicates a 99% vinyl chloride removal efficiency but for a conservative estimate of emissions, 70% removal was assumed. The VGAC units are designed to remove VOCs. Manufacturers estimate that the VGAC units will achieve 80 to over 99% removal of VOCs. In order to conservatively estimate potential emissions, a removal efficiency of 70% was assumed.</p>
Comment 30	In AOS-3, if the thermal oxidizer is used, but the PPA vessels are removed, (and they are the equipment needed to remove Vinyl Chloride)... how is Vinyl Chloride going to be removed?
Response 31	<p>AOS-3 can only be implemented if the vinyl chloride soil vapor concentrations are below the method reporting level as specified in Condition 34.H.1 of the proposed addition to the permit. This lower inlet concentration is enough to show that the emission limit for vinyl chloride in Table 34-1 will be met. Some of the vinyl chloride, if present, will still be removed by the thermal oxidizer, and some vinyl chloride will also be removed by the VGAC units. Regardless, the level of vinyl chloride emissions that could occur under AOS-3 results in ambient concentrations less than the AAAQGs.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 32	If the extracted free product is not burned, what will be done with it? What does that mean in terms of pollution? What are the pollutants in this case and what are the pollution levels?
Response 32	The proposed BSVE system that is the subject of this Title V air quality permit significant revision does not involve extraction or disposal of free product.
Comment 33	During diesel combustion, PM and PM10 are not the same. Why are they the same in Table 4-1 for this type of fuel?
Response 33	The thermal oxidizer is fueled by natural gas and not diesel fuel. This question refers to Table 4-1 of the TSD. The table is a summary of emissions based on EPA's AP-42 emissions factors; PM and PM10 are calculated as being equal under AP-42 guidance for this process.
Comment 34	Are Dioxin/Furan emissions expected for all 5 scenarios? What are the levels for each scenario?
Response 34	Dioxin/furan emission can be associated with operation of a thermal oxidizer. Under AOS-4 and AOS-5, the thermal oxidizer is not operating; therefore, no dioxin / furan emissions would be expected under those operating scenarios. The highest allowed emission level for dioxin/furans are presented in Table 34-1 of the air quality permit (0.000008 grams/hr and 0.068 grams/yr)
Comment 35	If Honeywell Engines, Systems and Services is a Title V facility, shouldn't there be some monitoring of this activity? Shouldn't there be cumulative modeling?

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 35	<p>The permit revision includes extensive monitoring of this activity. There are monitoring requirements spelled out in Section C of the permit revision for this system. In addition, there are specific monitoring requirements spelled out in each alternate operating scenario for individual components of the BSVE system. There are also required performance tests that will be observed by MCAQD compliance staff. No modeling was required for other sources at the facility since (1) AAAQGs are evaluated on an individual project basis, not cumulatively (refer to Response 102); and (2) there are no other significant sources of HCl, HF, benzene, vinyl chloride, or dioxin (the chemicals of most interest) at the existing facility. Cumulative modeling is not required because this project is not a major modification to the facility.</p>
Comment 36	Para. 5.1.1. NSPS - Isn't this modification new? Therefore shouldn't NSPS apply here? Grandfathering of Pollution is not acceptable.
Response 36	<p>This question refers to the TSD. There is no New Source Performance Standard (NSPS) that would apply to the any of the emission units associated with the BSVE.</p>
Comment 37	Honeywell has had 39 NOV's since 2003; 31 in 2006. (8 resolved, 15 report in progress, and 16 enforcement pending since 2006). With so many enforcement pending" NOV's, expectations that this Vapor Recovery Project will be handled well are low. Another reason not to issue this permit.
Response 37	<p>MCAQD currently has a pending enforcement action for the Honeywell facility. A permit cannot be denied if the applicant demonstrates that every such source for which a permit or permit revision is sought is so designed, controlled, or equipped with such air pollution control equipment that the source may be expected to operate without emitting or without causing to be emitted air contaminants in violation of the provisions of federal, state and county rules and regulations. Rigorous monitoring and record keeping required by this permit modification help ensure compliance to permit conditions and all applicable rules and regulations. If violations of the permit conditions and/or applicable rules and regulations occur, MCAQD will take appropriate action to ensure that the facility returns to and maintains compliance.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 38	With multiple toxic pollutants produced by this project, a source test should be done when work begins not later in the project.
Response 38	Performance test requirements in Section E are based on Maricopa County Air Pollution Control Regulation II, Rule 270 and MCAQD compliance guidelines. There are monitoring requirements related to extraction wells, as well as components of the BSVE system, that take effect immediately.
Comment 39	Permit #97008 is 10 years old. Why hasn't it been renewed?
Response 39	The renewal of a permit is scheduled for every 5 years from the date of issuance. Since this permit was issued in 2005, the renewal is not due until 2010. MCAQD does not assign a new permit number upon renewal.
Comment 40	The elimination of flameless thermal oxidizer technology by the permit as written by MCAQD ensures the formation of dioxins. The MCAQD permit does not consider a new continuous monitoring technology for dioxins, which was suggested by the community.
Response 40	Dioxin and furan formation is dependent on temperature and not simply whether a flame is present (refer to Response 80). Therefore, a flameless thermal oxidizer (which operates at a high temperature) would not eliminate the potential to form dioxins and furans, since the exhaust gas temperature from the flameless oxidizer would eventually cool to the range of dioxin/furan formation. There is no EPA-approved continuous monitoring methodology for dioxins; this technology is experimental and not EPA-approved at this point in time. The only approved EPA method is the one referenced in the proposed permit addition, Section E (EPA Method 23).

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 41	This permit does not include nearly the same level of oversight of this clean-up in terms of monitoring, sampling, reporting, inspection, design review, etc., as Superfund oversight would.
Response 41	MCAQD contends that this clean-up project will receive as much or more oversight as would apply under Superfund. MCAQD has a local staff of engineers, inspectors, and enforcement officers who are committed to air quality compliance. In addition, this permit was subject to USEPA Air Quality and Superfund staff review and all USEPA comments were addressed in the permit revision. Please refer to the attached letter from ADEQ for additional discussion. Refer to Response 105 for additional discussion regarding MCAQD oversight activities.
Comment 42	This clean up effort, part of an ADEQ Corrective Action Plan, is under the jurisdiction of the Tank Programs Division (TPD) and not Superfund. The Tank Programs Division has no authority to control air emissions (resulting in MCAQD Title V permitting). A Title V permit sets allowable air pollutant levels as if these contaminants were first-time new sources, which they are not. ADEQ's insistence that the jurisdiction for this clean-up should be solely with the TPD and not jointly with Superfund, has led to a situation where air emissions of Superfund CVOCs are being permitted by MCAQD, even though MCAQD has no authority over Superfund air emissions. This situation seems to make much more sense to government officials than it does to community members.
Response 42	As mentioned by the commenter, this clean-up effort is primarily overseen by the ADEQ Tank Programs Division. Therefore, MCAQD has clear authority to issue a permit which regulates all pollutants proposed to be emitted by the facility, including those that are commonly associated with Superfund clean-ups. The decision to place the project under the Tank Programs Division was made prior to MCAQD's involvement in the project and is not within the scope of this permit decision. Please refer to the attached letter from ADEQ for additional discussion.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 43	The emission limits and substantive operating requirements set out in the revisions are flawed and inconsistent with applicable law.
Response 43	The emission limits in the proposed BSVE permit addition are consistent with all applicable MCAQD rules, EPA rules, and the Arizona Ambient Air Quality Guidelines (AAAQGs), which are designed to protect public health.
Comment 44	The revisions create conditions that are not practically enforceable, and thus violate federal law and county regulation.
Response 44	The emission limits in the proposed BSVE permit addition are consistent with MCAQD rules, EPA rules, and the Arizona Ambient Air Quality Guidelines (AAAQGs), which are designed to protect public health. This proposed permit addition includes enforceable emission limits and performance test requirements. The conditions are practically enforceable because each emission limit is associated with monitoring, recordkeeping, and reporting requirements.
Comment 45	Numerous monitoring requirements are deficient, and thus fail to yield reliable data regarding the facility's compliance with the permit terms.
Response 45	Every emission limit and control requirement is associated with a monitoring requirement. There are monitoring requirements spelled out in Section C of the proposed addition to the Honeywell Title V permit for the BSVE system. In addition, there are specific monitoring requirements spelled out in each alternate operating scenario for individual components of the BSVE system. There are also required performance tests that will be observed by MCAQD compliance staff. These requirements are consistent with MCAQD regulations and compliance guidelines. Monitoring data will be reviewed by MCAQD compliance staff.
Comment 46	The triggers for implementing the Alternative Operating Scenarios are vague, and fail to adequately protect air quality and public health.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 46	<p>The criteria for implementing each operating scenario is addressed in the general operational limitations associated with each alternate operating scenario. AOS-1 and AOS-2 include operation of all controls. They differ only in the volume of extracted air that can be treated. AOS-3, AOS-4, and AOS-5 require soil vapor concentrations below specific threshold levels, which are designed to show that the emissions limits in Table 34-1 will be met without use of the full control train required under AOS-1 and AOS-2. For example, according to Permit Condition 34.H.1.b, AOS-3 may only be implemented if “the BSVE system influent vinyl chloride concentration is below the method reporting level for at least three (3) monitoring events over a period of at least six (6) months and including all monitoring events within the last six (6) months.” The trigger levels for implementing each scenario are designed to adequately protect air quality and public health.</p>
Comment 47	<p>We request that Maricopa County Air Quality Department (MCAQD) amend the draft permit revisions and reissue the amended draft for public comment. Further, we endorse the specific comments and concerns identified by the Lindon Park Neighborhood Association.</p>
Response 47	<p>This permit has been subject to the same public notice and comment procedures as apply to any significant revision. These procedures do not prescribe a second draft or second public comment period. The state statute allows for appeals to permit actions. For additional information about a permit appeal, please refer to Arizona Revised Statutes Title 49, Sections 480.02 and 49-482. In addition the Title V permit program includes provisions for public petitions to Title V permits.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 48	Arcadia West Neighborhood Association wishes to state our support for the efforts, concerns and comments of the Lindon Park Neighborhood Association regarding the proposed Revisions to Title V Permit No. V97008, Honeywell Engines, Systems and Services' Biologically Enhanced Soil Vapor Extraction System. We request that Maricopa County Air Quality Department (MCAQD) amend the draft permit revisions and reissue the amended draft for public comment.
Response 48	Refer to Response 47.
Comment 49	This permit should be categorically denied. This is an illegal permit.
Response 49	This permit meets all legal requirements.
Comment 50	The Maricopa County Air Quality Department (MCAQD) is violating Title VI of the Civil Rights Act of 1964 and the Environmental Protection Agency's ("EPA") implementing regulation, 40 C.F.R. § 7.35, by discriminating on the basis of race in its administration of its air pollution program. The MCAQD has admitted it has no special process or procedure to determine whether there is a disparate or adverse impact to the community adjacent to this facility by the additional air pollution to be emitted by the modification. To determine the risk to the overwhelmingly ethnic minority population in the area, the MCAQD should conduct cumulative modeling of all known air emissions from facilities in the area, including the typical 252,000 to 260,000+ annual emissions already reported by the Honeywell facility, including its HAPs, VOCs, NOx, SOx, and PM10, as well as from the nearby major airport. The MCAQD should have also required the applicant to consider other available technologies to remove these chemicals from the soils and dispose of them far away from this neighborhood, and not just allowed even more toxins to be emitted into the already burdened air there. But the MCAQD did not do this.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 50	<p>In issuing this permit the MCAQD has not violated Title VI of the Civil Rights Act of 1964 or 40 CFR §7.35. EPA and MCAQD standard modeling procedures were used to evaluate the emissions from this project. Cumulative modeling is not required in this case because this permit action is not a major modification subject to Rule 240. Also, current county policy does not require modeling for this type of control system. With regard to HAPS, the Arizona Ambient Air Quality Guidelines were used to evaluate this project. According to county permitting procedures, the estimated ambient impact of AAAQG compounds is to be evaluated against the AAAQG levels without adding background levels or the impact of other facilities.</p> <p>MCAQD reviewed the proposed technologies and determined that such technologies would be capable of meeting all air quality rules and regulations.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 51	<p>Title VI of the Civil Rights Act of 1964 is a federal law that prohibits discrimination on the basis of race, color, or national origin in all programs or activities receiving federal financial assistance. Title VI itself prohibits intentional discrimination.</p> <p>No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. 42 U.S.C. § 2000d. The MCAQD, a direct recipient of federal financial assistance from EPA have violated Title VI as implemented through EPA's regulations by failing to properly administer its air pollution program. In particular, EPA's Title VI regulations provide that an EPA aid recipient "shall not use criteria or methods of administering its program which have the effect of subjecting individuals to discrimination because of their race, color, national origin, or sex." 40 C.F.R. § 7.35(b).</p> <p>The effect of MCAQD's administration of its air pollution programs is clear: People of color will bear disproportionate risks and impacts from air pollution, yet the MCAQD will not properly administrate its air pollution program and comply with applicable statutes as mentioned before; and the MCAQD will not provide a means to decrease risks and impacts to this affected community.</p> <p>The Supreme Court has ruled, however, that Title VI authorizes federal agencies, including EPA, to adopt implementing regulations that prohibit discriminatory effects as well as intentional discrimination. Frequently, discrimination results from policies and practices that are neutral on their face, but have the effect of discriminating. Facially-neutral policies or practices that result in discriminatory effects violate EPA's Title VI regulations unless it is shown that they are justified and that there is no less discriminatory alternative."</p> <p>So the MCAQD is ignoring its requirements under the law, and intentionally violating the civil rights of the ethnic minority community adjacent to this facility.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 51	There has been no discrimination to any person as a result of race, color, or national origin in issuance of this permit. All MCAQD regulations as well as the MCAQD Environmental Justice Policy have been followed.
Comment 52	These emissions limits, 9 tons/year of a single HAP and 22.5 tons/year of all HAPs, are many times the expected HAPs emissions from the new soil vapor extraction unit. The emissions limits should be set very close to expected emissions, not a multiple of many times the expected emissions.
Response 52	The emission limits in Table 34-1 of the proposed permit addition are less than the values stated above. For this system, the total HAP emissions are 3.89 tons per year. The values stated above are part of the general permit conditions (Table 18.1) that apply to the entire facility.
Comment 53	The MCAQD tried illegally to prevent testimony and comment at the May 31, 2007 public hearing, which is also a civil rights matter.
Response 53	All citizens were provided an opportunity to submit written and oral comments. It is common practice and within the limits of the law to maintain a time limit on verbal comments to allow all concerned citizens the opportunity to speak.
Comment 54	First, the emission limits for AOS-1 and AOS-2 are identical, despite the fact that both the permit application and the MCAQD's technical support document (TSD) acknowledge that the emissions for AOS-1 will be significantly lower. For example, Table 4-1 in the TSD demonstrates that emission levels for VOCs and total hazardous air pollutants (HAP) are lower in AOS-1 than in AOS-2. VOC emissions are 4.06 tons per year (tpy) for AOS-1 and 6.52 tpy for AOS-2; HAP emissions are 3.74 tpy for AOS-1 and 3.86 tpy for AOS-2. Yet the draft revisions would allow VOC emissions of 6.52 tpy even under AOS-1, almost two and a half more tons than the amount stated in the application and the TSD. The permit limits under AOS-1 must reflect the expected representative performance of the BSVE system as set out in the TSD.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 54	As the commenter indicates, Table 34-1 lists the emission limits that apply during all scenarios. The applicant demonstrated that at these emission rates, all applicable requirements would be met. The dispersion modeling indicates that the NAAQS and AAAQGs are protected by the emission limits under all possible operating scenarios. It is also important to note that this permit limits the quantity of emission not only by numerical emission limits but also through the control system operating requirements.
Comment 55	<p>Second, the proposed revisions fail to include assumptions in the TSD regarding operating practices intended to minimize formation of dibenzo-p-dioxin and dibenzofuran (PCDD/PCDF) in the incinerators. The TSD states on page 28:</p> <p style="text-align: center;">The BSVE system is designed to minimize, if not eliminate the potential for dibenzo-p-dioxin and dibenzofuran (PCDD/PCDF) emissions. Design considerations include limiting the potential for carbon monoxide formation in the thermal oxidizer, minimizing the residence time in high temperature exhaust (exhaust quenching), and filtering particulates out of the inlet air.</p> <p>A review of the draft revisions revealed no language making these practices an enforceable part of the permit.</p>
Response 55	The practices are part of the permit as the permit specifies the equipment that must be in place prior to operation of the system. The equipment that must be in place achieves the practices intended.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 56	<p>Third, the proposed revisions do not incorporate existing MCAQD policy regarding air emission at soil remediation sites. In its <i>Guidelines for Remediation of Contaminated Soil</i> (May 18, 1998), MCAQD described the application of the air pollution control regulations to soil remediation projects. The <i>Guidelines</i> state that “VOC emissions into the atmosphere greater than three pounds per day may be permitted if an air pollution control device is used which has a control efficiency for VOCs of at least 90% by weight.” (P. 2) AOS-5 fails to meet this requirement. Despite the fact that VOC emissions in that operating scenario will exceed three pounds per day, the permit does not establish a minimum control efficiency for the granulated activated carbon unit(s) of 90%. In fact, the permit application and TSD both assume a control efficiency of 70%. (Application at 2-5; TSD at 21, Table 4-6).</p>
Response 56	<p>Under AOS-5, the carbon vessels each have a minimum assumed removal efficiency of 70%. However there are 3 in series per SVT. Two carbon vessels result in 91% control $[(1-0.70) \times (1-0.70) = (1 - 0.91)]$. A permit limit has been included under AOS 4 and 5 to require either 90% overall VOC removal or a VOC exhaust concentration of 10ppmv as methane as demonstrated by performance testing. Refer to Response 2.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses						
<p>Comment 57</p>	<p>This permit is unenforceable as a practical matter because it limits access to the type of evidence that the public and the EPA may rely upon to show that the facility is violating the permit. It is also illegal because it limits the type of evidence that the public may rely upon to show that the facility is violating its air quality permit, and limits or prevents the public from enforcing certain requirements.</p> <p>A Title V permit must have provisions that allow the public sufficient information to determine whether the facility is in compliance. Among other issues, the record keeping requirements in the proposed permit are such that the records are kept at the facility and there is no provision for public access or inspection. Therefore, unless the facility is required to file its records with the custodian of records so that the public may have access to the reports, the permit must be denied.</p>						
<p>Response 57</p>	<p>All required reports submitted to the MCAQD become part of the facility's file through the custodian of records and are available for public review and inspection. These reports include reports of all testing, monitoring, deviations, and excess emission events. This information includes sufficient information to determine whether the facility is in compliance. Nothing in the permit prevents the public from seeking enforcement action.</p>						
<p>Comment 58</p>	<p>Comments 58 – 65 were provided by the commenter as examples where “the draft revisions are not practically enforceable.</p> <table border="1" data-bbox="415 1423 1557 1650"> <thead> <tr> <th data-bbox="415 1423 695 1470">Provision</th> <th data-bbox="695 1423 997 1470">Description</th> <th data-bbox="997 1423 1557 1470">Concern</th> </tr> </thead> <tbody> <tr> <td data-bbox="415 1470 695 1650">Throughout</td> <td data-bbox="695 1470 997 1650">Specifications for the various control units.</td> <td data-bbox="997 1470 1557 1650">The permit fails to identify the technical specifications (including size, capacities, media used) and manufacturer information for the units covered by the permit.</td> </tr> </tbody> </table>	Provision	Description	Concern	Throughout	Specifications for the various control units.	The permit fails to identify the technical specifications (including size, capacities, media used) and manufacturer information for the units covered by the permit.
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Throughout	Specifications for the various control units.	The permit fails to identify the technical specifications (including size, capacities, media used) and manufacturer information for the units covered by the permit.					
<p>Response 58</p>	<p>The Appendix B permitted equipment list specifies those aspects of the system that are critical for operations and for meeting the emission limits, including size requirements where relevant. The applicant is not allowed to initiate any equipment purchase before the permit is issued.</p>						

WRITTEN COMMENTS

Comment #	Comments/Responses		
<p>Comment 59</p>	<p>Provision</p>	<p>Description</p>	<p>Concern</p>
	<p>34.A(1)</p>	<p>Install, operate and maintain control equipment in accordance with the manufacturer’s specifications</p>	<p>Incorporation of manufacturer specifications by reference is problematic because the public has no opportunity to review and comment upon the specific provisions included in the permit. In fact, it appears that MCAQD itself does not know what is in the specifications or whether the language in those specifications is practicably enforceable. This use of manufacturer specification appears throughout the draft revisions.</p>
<p>Response 59</p>	<p>The Appendix B permitted equipment list specifies those aspects of the system that are critical for operations and for meeting the emission limits, including size requirements where relevant. The applicant is not allowed to initiate any equipment purchase before the permit is issued. The permit includes key operating parameters and operating ranges for each control device used. In addition, the Permittee is required to conduct performance and emission testing and is held to the parameter operating range for each control device. Refer to Responses 60 and 169 for additional discussion.</p>		
<p>Comment 60</p>	<p>Provision</p>	<p>Description</p>	<p>Concern</p>

WRITTEN COMMENTS

Comment #	Comments/Responses								
	34(A)(1)	Install, operate and maintain control equipment in accordance with the most recently approved O&M Plan	Incorporation of O&M plans by reference is likewise problematic because the public has no opportunity to review and comment upon the specific provisions included in the permit. The O&M plan approval process could lead to significant changes in the manner in which units are operated or maintained, yet would ostensibly not be viewed as a permit revision requiring public review and comment. See Section 34(K)(3) of the draft revisions (treating changes to O&M Plan as minor permit revisions.) This use of the O&M plan in this manner appears throughout the draft revisions.						
Response 60	The permit and Appendix B permitted equipment list specifies those aspects of the system that are critical for operations and for meeting the emission limits, including size, operational requirements, and minimum monitoring requirements. The O&M Plans support the permit and provide additional detail and restrictions that further ensure that the emission limits are met. Changes to the O&M plans cannot significantly change the manner in which units are operated or maintained because the key operating characteristics are included in the permit. Any change to the operating conditions in the permit would require a significant permit revision. The public has an opportunity to review the O&M plans.								
Comment 61	<table border="1"> <thead> <tr> <th data-bbox="422 1396 682 1438">Provision</th> <th data-bbox="690 1396 990 1438">Description</th> <th data-bbox="998 1396 1550 1438">Concern</th> </tr> </thead> <tbody> <tr> <td data-bbox="422 1438 682 1701">34(E)(11)</td> <td data-bbox="690 1438 990 1701">“Compliance with allowable emission limits and standards shall be determined by the performance tests specified in this permit.”</td> <td data-bbox="998 1438 1550 1701">This language potentially limits the type of evidence that can be used in determining whether a facility is out of compliance. As such, the language contradicts the “credible evidence rule.”</td> </tr> </tbody> </table>	Provision	Description	Concern	34(E)(11)	“Compliance with allowable emission limits and standards shall be determined by the performance tests specified in this permit.”	This language potentially limits the type of evidence that can be used in determining whether a facility is out of compliance. As such, the language contradicts the “credible evidence rule.”		
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Response 61 34.E.11	The permit was revised to include “other requirements” in compliance determination.								

WRITTEN COMMENTS

Comment #	Comments/Responses		
<p>Comment 62</p>	<p>Provision</p> <p>34(F)(2)(a) (and throughout)</p>	<p>Description</p> <p>Thermal oxidizer must be maintained at a temperature of between 1400 and 1800 degrees.</p>	<p>Concern</p> <p>This language is inconsistent with the performance testing provisions for the thermal oxidizer(s), which provides that the unit must be “operated at or above the combustion chamber set-point temperature used to demonstrate compliance.” 34(E)(5)(a). The provisions should be modified to clarify that the set-point temperature must be incorporated into the O&M Plan.</p>
<p>Response 62</p> <p>34.E.5.a 34.F.2.a.ii 34.G.2.a.ii 34.H.2.a.ii</p>	<p>The permit was revised and the temperature upper limit of 1800 degrees F was removed to allow the oxidizer to be operated at higher temperatures if warranted by the initial compliance test. The permit was also revised to require the oxidizer to be operated “at or above the minimum temperature at which the oxidizer achieved 99% destruction efficiency during the most recent approved performance test, but no lower than 1,400 °F.” The Permittee must comply with these permit conditions at all times. As subsequent performance tests are conducted, the temperature required to meet the required destruction efficiency may change (above 1,400 °F). The new operating temperature must be recorded and the oxidizer will be required to operate no lower than that temperature (conditions above will still apply).</p>		
<p>Comment 63</p>	<p>Provision</p> <p>34(F)(3)(a)(and throughout)</p>	<p>Description</p> <p>The caustic scrubber is to be operated “as otherwise specified by the equipment manufacturer.”</p>	<p>Concern</p> <p>This language is vague as it fails to identify how the manufacturer will provide the specification and what the specification will be.</p>
<p>Response 63</p>	<p>Permit condition 34(F)(3)(a) also specifies caustic scrubber operating ranges for pH, differential pressure, recirculating water flow rate, and air flow rate. Refer to Responses 169, 177 and 178 regarding revisions made to the permit.</p>		
<p>Comment 64</p>	<p>Provision</p>	<p>Description</p>	<p>Concern</p>

WRITTEN COMMENTS

Comment #	Comments/Responses								
	34(F)(3)(a)(and throughout)	The caustic scrubber must be operated within certain specified parameters.	The performance testing provisions call for monitoring and recording of operating parameters during the performance test. It is unclear why these results would not be used as the enforceable operating parameters in 34(F)(3)(a).						
Response 64	Refer to Responses 169, 177 and 178 regarding revisions made to the permit.								
Comment 65	<table border="1"> <thead> <tr> <th data-bbox="420 653 686 699">Provision</th> <th data-bbox="686 653 997 699">Description</th> <th data-bbox="997 653 1550 699">Concern</th> </tr> </thead> <tbody> <tr> <td data-bbox="420 699 686 1050">34(F)(5)</td> <td data-bbox="686 699 997 1050">PPA units operated and maintained in accordance with O&M Plan “most recently submitted to the Control Officer.”</td> <td data-bbox="997 699 1550 1050">This provision raises the same concerns addressed above regarding incorporation of the O&M Plan by reference. It is even more troubling because it incorporates O&M Plans that are submitted to but not yet approved by the MCAQD. This essentially allows the facility to write its own requirements without agency involvement.</td> </tr> </tbody> </table>	Provision	Description	Concern	34(F)(5)	PPA units operated and maintained in accordance with O&M Plan “most recently submitted to the Control Officer.”	This provision raises the same concerns addressed above regarding incorporation of the O&M Plan by reference. It is even more troubling because it incorporates O&M Plans that are submitted to but not yet approved by the MCAQD. This essentially allows the facility to write its own requirements without agency involvement.		
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34(F)(5)	PPA units operated and maintained in accordance with O&M Plan “most recently submitted to the Control Officer.”	This provision raises the same concerns addressed above regarding incorporation of the O&M Plan by reference. It is even more troubling because it incorporates O&M Plans that are submitted to but not yet approved by the MCAQD. This essentially allows the facility to write its own requirements without agency involvement.							
Response 65	The permit and Appendix B permitted equipment list specifies those aspects of the system that are critical for operations and for meeting the emission limits, including size, operational requirements, and minimum monitoring requirements. This permit condition also includes specific change-out requirements which ensure proper operation and removal of pollutants. Refer to Responses 3, 169 and 179 regarding revisions made to the permit.								

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 66	<p>One of the primary goals of Title V permitting is the implementation of comprehensive, systematic monitoring programs. Prior to Title V, permits often established emission limits and standards without identifying any meaningful monitoring mechanisms. Thus, it was virtually impossible to evaluate whether the facility was complying with the substantive obligations set out in the permits. Title V responded to this pervasive problem by requiring periodic monitoring sufficient to “yield reliable data representative of the source’s compliance with the permit.” MCAQD Rule 302.1(c)(2).</p> <p>Periodic monitoring should provide a basis for which a responsible official for a source may certify whether the facility’s emissions units are in compliance with all applicable air pollution control requirements. Data from periodic monitoring is also important to permitting authorities and citizens for the purposes of assessing a sources’ compliance with applicable requirements. The periodic monitoring in the proposed revisions is inadequate in that it fails to provide reasonable assurance of compliance, as described in detail in the table below. However, the most disturbing deficiency relates to basic monitoring requirements for the BSVE emission limitations.</p> <p>Hourly and annual emission limits for the BSVE are set out in Table 34-1 of Section 34(B) of the proposed revisions. The last column of that table includes notes on how emissions are to be calculated for compliance determination purposes. The calculation methods have two fatal flaws. First, Section 34(B)(1) provides that “all hourly emission rates shall be calculated by dividing the annual emission rate by the actual hours of operation of the BSVE system.” This method of calculating hourly emission rates is alarming because it allows Honeywell to take a whole year’s worth of emissions and average it out to get the hourly emission rates. Thus, Honeywell could consistently exceed the hourly emission limits throughout the year, as long as those exceedances are “smoothed over” by averaging across the year. Methods of monitoring to obtain hourly emission rates should relate to the emission limit. Honeywell must monitor and record its emissions substantially more frequently in order to accurately report hourly emission levels.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 66 34.B.1 Note 1	Stack testing and control efficiency testing are used to determine whether emission limits have been met on a short-term basis but as the commenter implies, these tests are not continuous. The permit has been revised to clarify that hourly emission rates are to be determined through stack testing required by the permit. Compliance assurance for emission limits and protection of the NAAQS and AAAQGs are accomplished through continuous monitoring of critical operational parameters such as temperature and flow rate. Refer to Response 61.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 67	<p>Second, the revisions require that the facility calculate emissions by using emission factors—rather than direct measurement or appropriate parametric monitoring—for the following pollutants: NO_x, CO, SO₂, PM₁₀, and VOCs. It appears that the emission factors were drawn from EPA’s <i>Compilation of Air Pollutant Emission Factors AP-42 (AP-42)</i>.</p> <p>MCAQD cannot rely upon emission factors to measure compliance with the emission limits because emission factors do not reflect actual emissions from the facility. EPA expressly notes this in the introduction to AP-42:</p> <p style="text-align: center;"><i>Use of these factors as source-specific permit limits and/or emission regulation compliance determinations is not recommended by EPA. Because emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the factors.</i></p> <p>The inherent uncertainty of emission factors is exacerbated in the case of the PM emission factor. In establishing emission factors, EPA rated the factors on a scale of “A” to “E” to provide “an overall assessment of how good a factor is, based on both the quality of the test(s) or information that is the basis for the factor and on how well the factor represents the emission source.” The PM factor received a rating of “D,” indicating that EPA considers its quality to be below average.</p>
Response 67	<p>When no other data are available, AP-42 emission factors are commonly used to estimate emissions and thus establish emission limits. County Rule 280, Section 305.1.b indicates that AP-42 emission factors can be used to calculate actual emission quantities when sufficient data obtained using continuous emissions monitors, source performance tests, or material balance is not available.</p>
	<p>Comments 68 – 72 are other monitoring concerns provided by the commenter.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses							
<p>Comment 68</p>	<table border="1"> <thead> <tr> <th data-bbox="414 279 695 325">Provision</th> <th data-bbox="695 279 995 325">Description</th> <th data-bbox="995 279 1555 325">Concern</th> </tr> </thead> <tbody> <tr> <td data-bbox="414 325 695 741"> <p>34(B)(1), note 6</p> </td> <td data-bbox="695 325 995 741"> <p>VOC emissions calculated, in part, on the basis of ‘the amount of VOCs entering the BSVE system, as reported in the most recent sampling of the BSVE system inlet(s).’”</p> </td> <td data-bbox="995 325 1555 741"> <p>DWAZ was unable to find any provisions requiring sampling of the BSVE system inlets, or establishing a schedule or method for such sampling and analysis. Section 34(C)(4) provides for annual sampling of the vapor extraction wells for benzene, TPH and vinyl chloride. This is insufficient for VOC emission monitoring due to the limited scope of analytes and the failure to monitor on a substantially more frequent basis.</p> </td> </tr> </tbody> </table>	Provision	Description	Concern	<p>34(B)(1), note 6</p>	<p>VOC emissions calculated, in part, on the basis of ‘the amount of VOCs entering the BSVE system, as reported in the most recent sampling of the BSVE system inlet(s).’”</p>	<p>DWAZ was unable to find any provisions requiring sampling of the BSVE system inlets, or establishing a schedule or method for such sampling and analysis. Section 34(C)(4) provides for annual sampling of the vapor extraction wells for benzene, TPH and vinyl chloride. This is insufficient for VOC emission monitoring due to the limited scope of analytes and the failure to monitor on a substantially more frequent basis.</p>	
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<p>Response 68</p>	<p>In order to confirm the destruction efficiency of the thermal oxidizer, sampling of the inlet to the BSVE system will be required. The benzene, TPH, and vinyl chloride chemicals were chosen for routine monitoring as they are indicators of the overall system, and vinyl chloride and benzene modeled impacts were the greatest with respect to the AAAQGs.</p>							
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<p>Response 69 34.C.7</p>	<p>The requirements for opacity monitoring are spelled out in detail and included in Permit Condition 20 of the general permit requirements of the Title V permit. The proposed addition to the permit (Section 34) is an addition to the existing permit, with all other permit conditions for the facility remaining in place. A link to permit condition 20 has been included as requested.</p>							
<p>Comment 70</p>	<table border="1"> <thead> <tr> <th data-bbox="414 1654 695 1701">Provision</th> <th data-bbox="695 1654 995 1701">Description</th> <th data-bbox="995 1654 1555 1701">Concern</th> </tr> </thead> <tbody> <tr> <td data-bbox="414 1701 695 1764"></td> <td data-bbox="695 1701 995 1764"></td> <td data-bbox="995 1701 1555 1764"></td> </tr> </tbody> </table>	Provision	Description	Concern				
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WRITTEN COMMENTS

Comment #	Comments/Responses								
	34(C)(6)	Honeywell is required to “monitor and record inlet flow to the injection manifold.”	This is also impermissibly vague as it fails to establish a monitoring method and frequency.						
Response 70 34.C.6	The permit was revised to require continuous monitoring.								
Comment 71	<table border="1"> <thead> <tr> <th data-bbox="414 672 690 714">Provision</th> <th data-bbox="690 672 998 714">Description</th> <th data-bbox="998 672 1559 714">Concern</th> </tr> </thead> <tbody> <tr> <td data-bbox="414 714 690 924">34(D)(3)(a)</td> <td data-bbox="690 714 998 924">This section calls for deviation reporting in the semi-annual report.</td> <td data-bbox="998 714 1559 924">Deviations should be reported immediately and corrective action taken. There is a deviation reporting section in the existing permit; that section should be expressly referenced in the draft revisions.</td> </tr> </tbody> </table>			Provision	Description	Concern	34(D)(3)(a)	This section calls for deviation reporting in the semi-annual report.	Deviations should be reported immediately and corrective action taken. There is a deviation reporting section in the existing permit; that section should be expressly referenced in the draft revisions.
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Response 71	Monitoring, recordkeeping and reporting requirements for a Title V air quality permit must comply with MCAQD Rules. Compliance certification requirements are included in Section 4 of the general permit conditions. There are reporting requirements in Section 16 of the general permit conditions, including deviation, emergency and excess emission reporting. There are specific facility-wide reporting requirements included in Section 21 of the specific permit conditions of the Title V permit.								
Comment 72	<table border="1"> <thead> <tr> <th data-bbox="414 1312 690 1354">Provision</th> <th data-bbox="690 1312 998 1354">Description</th> <th data-bbox="998 1312 1559 1354">Concern</th> </tr> </thead> <tbody> <tr> <td data-bbox="414 1354 690 1491">34(F)(4)</td> <td data-bbox="690 1354 998 1491">Spent carbon to be stored in closed containers.</td> <td data-bbox="998 1354 1559 1491">The draft revisions contain no work practice standards for this requirement, nor any monitoring or reporting provisions.</td> </tr> </tbody> </table>			Provision	Description	Concern	34(F)(4)	Spent carbon to be stored in closed containers.	The draft revisions contain no work practice standards for this requirement, nor any monitoring or reporting provisions.
Provision	Description	Concern							
34(F)(4)	Spent carbon to be stored in closed containers.	The draft revisions contain no work practice standards for this requirement, nor any monitoring or reporting provisions.							
Response 72	34(F)(4) is consistent with MCAQD Rules for VOC containment and disposal. The storage and disposal of spent carbon is primarily a waste issue. The requirement to store the spent carbon in closed containers prior to removal offsite is consistent with work practices to minimize volatilization of any chemicals that have been adsorbed by the carbon vessels.								

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 73	The proposed revisions require that the “average soil vapor concentration of [the relevant pollutant] in the wells within the influence of the extraction system” be below the relevant trigger level. It is unclear whether the average in question is the average level in each well, or instead the average of the levels in all wells collectively.
Response 73 34.H.1.b 34.I.1.b.i, ii 34.J.1.b.i, ii, iii	The permit has been clarified to specify it is the average concentration of all wells collectively.
Comment 74	The average is to be “based on at least three (3) monitoring events over a period of at least six (6) months.” This standard would permit significant gamesmanship by Honeywell. For example, the standard could be met even if the most recent three monitoring events in a six month period were well above the trigger level because those more recent events are discarded in determining the average. Alternatively, three monitoring events below the trigger level would justify initiation of the alternative operating scenario even if there were spread out of a two year period.
Response 74 34.H.1.b 34.I.1.b.i, ii 34.J.1.b.i, ii, iii	The permit has been clarified to require the six month period to be a continuous calendar six months and that if there are more than 3 sampling events within the six months, all sampling events must be included in the average.
Comment 75	Once initiated, an alternative operating scenario may continue so long as the average concentrations of the relevant pollutant remains below the trigger level “for all monitoring events in the most recent twelve (12) month period.” It is unclear whether this operates prospectively (i.e., the 12 month period begins with the first month of operation of the AOS), or retrospectively (i.e., the twelve month period looks back to months prior to the initiation of the AOS.)

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 75 34.H.1.c 34.I.1.b.iii 34.J.1.b.iv	The permit has been clarified to require retrospective tracking, with the first year consisting of the most recent six months plus each additional month of operation.
Comment 76	No mention is made in the permit application or the draft permit of this site being part of an active federal Superfund Site or that the proposed BSVE system is for clean up of CVOCs commingled with jet fuel that are part of an ongoing Superfund clean-up. This is an important fact about this site and must be required to be disclosed in the Statement of Basis or Project Description.
Response 76	Primary oversight for this project rests with the ADEQ Tank Programs Division. It is clear in the Technical Support Document that this is a clean-up project designed to remediate soil that has been impacted by jet fuel and low concentrations of chlorinated solvents. Please refer to the attached letter from ADEQ for additional discussion.
Comment 77	Lack of its disclosure and the subsequent omission of this fact in the draft permit led to all public notices failing to include any mention of the Motorola 52nd Street Superfund Site. MCAQD was asked to include this fact in the Public Hearing Notice for the May 31, 2007, Public Hearing, but declined as it was not included in either the permit application or draft permit. This imposed an undue burden on the community to understand the importance of the permit application and public hearing and made it nearly impossible for the community to understand that this significant revision to an existing Title V Permit was not simply part of the ongoing, normal business operations of the Honeywell facility. This is an additional civil rights issue.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 77	<p>The Maricopa County Air Quality public notice did not make reference to the Superfund program for the following reasons:</p> <ol style="list-style-type: none">1) MCAQD understands that the ADEQ Tank Program Division has primary oversight for this remediation2) MCAQD understands that this cleanup effort is intended to address the Honeywell jet fuel spill3) MCAQD understands that if this project were primarily overseen by the Superfund program, an MCAQD air quality permit would not be required (refer to USEPA memo of February 19, 1992, OSWER Directive 9355.7-03) <p>For these reasons, indicating that this was a Superfund cleanup would have been inappropriate in this case. The public notice clearly indicated that this was a soil remediation project and listed the pollutants regulated by the permit. All public notification requirements included in Regulation II, Rule 210, Section 408 were met. Concerning civil rights, the MCAQD Environmental Justice Policy which addresses civil rights issues has been followed.</p>
Comment 78	<p>The circumstances of this permit revision are unique. MCAQD was not able to find any equivalent Title V permit and instead had to rely on permits issued for new sources. Sufficient information must be provided for the community to have a reasonable ability to understand that this permit for air emissions under a Title V permit was not for new sources and would and could not have the same level of oversight provided by Superfund under CERCLA.</p>
Response 78	<p>Sufficient information was provided in the permit application and the TSD for MCAQD to develop appropriate permit conditions. Both of these documents were available to the community. MCAQD asserts that this permit will have as much or more oversight as would apply under Superfund or CERCLA. Please refer to Response 105 and the attached letter from ADEQ for additional discussion.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 79	<p>Insufficient action has been taken to insure participation of residents in the area around the Honeywell 34th Street Facility, an area that meets level 1 screening criteria for an Environmental Justice Area. Unfortunately efforts to reach out to the community relied significantly on the labor of community members to spread the word. Translation of the Hearing Notice by Maricopa County was accomplished only after the Lindon Park Neighborhood Association (LPNA) had provided its own translation to the MCAQD when none was forthcoming. The MCAQD translation was not available until May 16, 2007. Lack of identification of the Honeywell Facility as part of an active Superfund Site and lack of identification of the CVOCs involved as Superfund contaminants as noted above put up additional impediments to involving the community in the public process.</p>
Response 79	<p>The public notification requirements associated with this permit revision met all requirements included in Maricopa County Air Pollution Control Regulation II, Rule 210, Section 408. This project is overseen primarily by the ADEQ Tank Programs Division. The public notice, accurately reflected the activities involved in the permit revision as required. The MCAQD Environmental Justice Policy has been followed in issuance of this permit. Translation services were provided at the public hearing. The halogenated solvents identified by the initial sampling and qualitative analysis of the ground contaminants were explicitly stated in the Public Notice. Refer also to Response 77.</p>
Comment 80	<p>The specification of a temperature operating range for the thermal oxidizers (or “incinerators”) that allows operation in the range of 1400°F to 1600°F, where formation of dioxins would be occurring due to the incomplete combustion of organic materials in the vapor when chlorinated hydrocarbons are present, must be re-examined. A higher minimum temperature of at least 1600°F must be designated.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 80	<p>The exact temperature at which dioxins-furans are formed is not known; however, it is generally accepted that there is a temperature range where an increased potential for dioxin-furan formation exists. According to EPA's website (http://www.epa.gov/eogapti1/module6/dioxins/formation/formation.htm), "dioxin-furan concentrations appear to increase over the temperature range from 400 to 1,000°F. However, at temperatures well above 1,000°F, dioxin-furan compounds are readily oxidized." Based on the information of EPA's website, the minimum operating temperature for the oxidizer (1,400°F) is above the temperature range for increased dioxin-furan concentrations (400 to 1,000°F). In order to ensure continuous compliance with the emission limits for all treated pollutants, including dioxins/furans, the permit was revised to require the Permittee to operate the thermal oxidizer at or above the temperature observed during the most recent approved performance test, but no lower than 1,400 degrees F. Refer to response 171.</p>
Comment 81	<p>The draft permit specifies an operating range for the thermal oxidizer units from 1400°F to 1800°F. It is possible, please see attachment, that this entire operating range of temperatures is too low and that "if the vapor stream contains halogenated compounds, a temperature of 1100°C (2000°F) and a residence time of one second is needed to achieve a 98% destruction efficiency. . . . The organic destruction efficiency of a thermal oxidizer can be affected by variations in chamber temperature, residence time, inlet organic concentration, compound type, and flow regime (mixing)."</p>
Response 81	<p>These variables do affect thermal oxidizer destruction efficiency; however, the manufacturer designs the oxidizer with these variables in mind and the oxidizer will be confirmed to achieve 99% destruction when the performance tests is conducted.</p>
Comment 82	<p>No matter how small the concentration of chlorinated VOCs, the potential for dioxin formation remains. Apart from the thermal oxidizers there is a second source for the formation of dioxins – from corrosion of the stack (usually related to fly ash).</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 82	Corrosion of the stack is not expected and fly ash generation is not expected. Nevertheless, emission testing to confirm that dioxin formation is less than the emission limits is required.
Comment 83	To verify the effectiveness of the proposed BSVE thermal oxidation process a third-party assessment that is independent from the one proposed by Honeywell must be conducted.
Response 83	MCAQD compliance staff will approve the testing protocols and will observe and evaluate the Honeywell emission tests.
Comment 84	The elimination by MCAQD of consideration of flameless thermal oxidation technology does not reflect current expertise on destruction of halogenated compounds and the avoidance of formation of dioxins and furans. If thermal oxidation technology is permitted, use of flameless thermal oxidizers must be considered.
Response 84	MCAQD has considered the flameless technology. Dioxin formation is not related to the presence or absence of a flame, but rather the temperature at which VOC destruction occurs. Flameless technology still has high temperature destruction and thus would not affect dioxin formation. Refer also to Responses 40 and 80.
Comment 85	MCAQD would not consider newer continuous monitoring system technology for dioxin emissions, designed to replace the labor intensive and more expensive manual stack sampling techniques used to quantify dioxins in the flue gas. Continuous monitoring for dioxin and furans emissions must be required. MCAQD must conduct independent testing for dioxins and furans during the scheduled performance tests to demonstrate facility compliance.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 85	There is no EPA-approved continuous monitoring methodology for dioxins; this technology is experimental and not EPA-approved at this point in time. The only approved EPA method is the one referenced in the proposed permit addition, Section E (EPA Method 23). Testing by this EPA method is required by the permit.
Comment 86	Since the O&M Plan will be finalized after issuance of the Title V Permit the public will not be given the opportunity for discussion, input or incorporation of concerns into the approved O&M Plan.
Response 86	The permit specifies those aspects of the system that are critical for proper operation and for meeting the emission limits, including size, operational requirements, and minimum monitoring requirements. The O&M Plans will then provide additional detail and restrictions that further ensure that the emission limits are met.
Comment 87	An additional concern is that operational requirements do not ensure system integrity and emissions limits will be met must be addressed. Any weaknesses in the system interlock and by-pass must to be identified and addressed.
Response 87	The equipment specifications, operational requirements, interlocks, emission testing, monitoring, recordkeeping, reporting, emission compliance tests, and MCAQD oversight are all designed to ensure that the emission limits are met.
Comment 88	The O&M Plan must include an inspection schedule for the activated carbon to treat the CVOCs and the vinyl chloride that does allow undetected breakthrough especially early on in the running of the system.
Response 88	The permit requires monitoring of the carbon vessels to ensure that breakthrough does not occur. In addition, two or more carbon vessels in series are required so that if breakthrough of the first vessel occurs, capture will be maintained in the second vessel.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 89	<p>While there is a concern about the lack of sufficient Operation and Maintenance procedures in general, there is a particular concern about the lack of an adequate the ramp-up schedule for thermal oxidation units SVT-1 and SVT-2. This start-up schedule must be no less rigorous than that which would be required under Superfund oversight. Preferably a schedule outlining MCAQD's presence during the first two to three days of starting up the equipment with sampling, then daily visits and sampling for the first week or two with visits and sampling tailoring off to weekly, twice a month, monthly, as the technology performance is demonstrated and documented. We do not share the County's assumption and reliance in the sufficiency of voluntary compliance and reporting.</p>
Response 89	<p>The requirements for performance testing scheduling are in accordance with MCAQD Rules and Regulations. Rule 270 Section 401 states that within 60 days after a source subject to the permit requirements of this rule has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 180 days after initial start-up of such source a source shall be conducted. Provisions exist to give the source time for ramp-up and fine tuning of the control train.</p>
Comment 90	<p>More frequent monitoring including split sampling and compliance reporting must be required. During start-up or any periods of non-compliance daily or more frequent sampling must be required and must include independent split sampling. Immediate reporting of non-compliance or deviation must be required. Records of all monitoring and sampling must be required to be kept and reported. Record retention requirements must be no less stringent than that required under Superfund. Monthly reporting is requested for normal operating conditions that are in compliance with the permit, and immediate reporting must be required for all other conditions or in any situations of non-compliance.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 90	Unlike water sampling, air pollution testing does not lend itself to split sampling and for most methods true split samples are not possible. Air pollution tests are instead witnessed by MCAQD staff to ensure their validity and provide oversight. Prompt reporting of deviations and excess emission events is required by the permit under the general conditions. The permit requires records of all monitoring and testing results. Reports of test and monitoring results are also required. County rule specifies a record retention of at least 5 years. MCAQD does not believe that monthly reports are necessary considering that deviation and excess emission reports are due very shortly after the upset event. Semiannual reports of monitoring results are sufficient.
Comment 91	Honeywell must be required to immediately report any incidence of non-compliance or deviation with no less a requirement than would be required under Superfund. A lag of up 30 days between identification and subsequent reporting, while testing is done and actions taken to bring the situation back into compliance (a requirement verbally described by MCAQD) must not be allowed under the Title V permit. The Title V Permit provision 21(A) is insufficient in requiring that “The Permittee shall identify all instances of deviations from the permit requirements in the semi-annual monitoring report. The Permittee shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.”

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 91	<p>According to condition 16 (D), on Emergency Reporting, the Permittee shall, as soon as possible, telephone the Control Officer giving notice of the emergency, and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.</p> <p>According to condition 16 (F), Excess Emissions Reporting, the owner and/or operator of any source shall report to the Control Officer any emissions in excess of the limits established by the County or SIP Rules or by the Permit Conditions. The report shall be in two parts: (1) notification by telephone or facsimile within 24 hours of the time when the owner and/or operator first learned of the occurrence of excess emissions and, (2) detailed written notification by submission of an excess emissions report within 72 hours of the phone notification stated above. The semi-annual monitoring reports referenced by the commenter are in addition to the reports described in this response.</p>
Comment 92	<p>More frequent inspections must be required as well as more frequent sampling. Any inspection must be site-wide at the Honeywell facility for the entire Title V permit. Inspection of all of the Honeywell facility takes at least 4 to 5 days to conduct and as soon as the inspector steps onto the Honeywell property significant prior warning of inspection is provided.</p>
Response 92	<p>While MCAQD cannot commit to a specific inspection frequency, the MCAQD policy is to inspect all Title V permits on an annual basis. Should MCAQD receive additional inspection staff this frequency may be increased. The statement that the inspection must be site-wide is not entirely correct. The annual inspections are intended to include a review and inspection of the entire site; however, MCAQD frequently conducts partial inspections in response to reports submitted or complaints received.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 93	Stack testing as proposed is insufficient (every 2 or 5 years after initial test). Semi-annual, if not more frequent, testing must be required with tests to include thermal oxidizer destruction efficiency, total VOC emissions, concentrations of individual VOCs, dioxin/furan emissions testing, and HCl and HF emissions testing at a minimum.
Response 93 34.E.1.b.ii, iv, v,vii, viii	The permit has been revised to increase the stack testing frequency. Refer to Response 7.
Comment 94	Wells and the BSVE system inlets must be monitored for more compounds than benzene, vinyl chloride, and TPH. All compounds listed in the Potential to Emit tables must be monitored and reported. The site is not well characterized, must have more frequent monitoring, and must include split sampling performed by MCAQD during these monitoring events. ADEQ's October 7, 2005, Corrective Action Plan Final Approval letter states under condition 5 that "the vapor-treatment monitoring plan shall include periodic monitoring for dioxins, along with all other chemicals of concern listed in Table 17 of the CAP." All chemicals and contaminants of concern identified under Superfund must be monitored and reported.
Response 94	Refer to Responses 7 and 8. Please refer to the attached letter from ADEQ for additional discussion.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 95	All thermal oxidizer residence times must be recorded and reported for operation of SVT-1 and SVT-2 along with reporting of the source of the fuel input and CVOC concentrations. The residence time used must be disclosed for all calculations including PTE calculations. All assumptions and parameters for calculations and modeling must be clearly noted. Variance of residence times and the impact on worst case scenario numbers must be included in the permit. The minimum residence time required must be specified to ensure more complete combustion of organic materials, and in particular, the chlorinated VOCs.
Response 95	Residence time is a parameter incorporated into the overall design of the thermal oxidizer system. It is one, not the only, parameter related to destruction efficiency. The destruction efficiency will be confirmed to be at least 99 % through the initial compliance test. The permit was revised to require a minimum residence time. Refer to Response 173.

WRITTEN COMMENTS

Comment #	Comments/Responses
<p>Comment 96</p>	<p>The input sources for thermal oxidizer “incinerator” units SVT-1 and SVT-2 need to be recorded and reported. The concentrations and characterizations of the fuel and CVOCs that are treated along with the length of time of treatment, temperature, residence time, etc., must be continuously collected, recorded, and reported. Honeywell’s permit application presented conflicting source streams into SVT-1 (3,300 scfm unit) and SVT-2 (2,000 scfm unit). Examples of this include:</p> <ul style="list-style-type: none"> • Page 1-1 statement reads that SVT-1 “will only be connected to wells located on Honeywell property. Wells located on Phoenix Sky Harbor International Airport (PSHIA) property will be phased-in to SVT-2 after start-up. • Page 1-2 statement describes SVT-2 as a system that “will be installed, if necessary, to achieve higher flow rates and mass throughput as wells are added to the BSVE system. The decision to install the second system will be based on the progress of remedial activities and how rapidly methane and TPH concentrations decline within the target treatment area, freeing up throughout capacity in SVT-1.” • On Page 4-5 the statement is made that “Emissions have been calculated for SVT-1 operating alone and for both SVT-1 and SVT-2 operating together. Emissions are presented for both situations to accurately reflect expected conditions on the site.” • However, on page 4-3 it is written that “Because the soil vapor concentrations are significantly higher on the Honeywell property (which includes the contaminant source) than on PSHIA property, for the purposes of emissions estimating, it was assumed that SVT-1 treated soil vapor from wells on the Honeywell side only whereas the combined SVT-1/SVT-2 system treated soil vapor from wells located throughout the target treatment area.” • Table 4-3 shows Maximum Potential Emissions After Treatment for SVT-1 and SVT-2 Operating. It appears from the numbers in the Inlet to SVT-2 that the source would have to be PSHIA. If the sources to SVT-1 and SVT-2 were as described in the air permit, then the annual inlet rates to SVT-1 would decrease from Table 4-2 and the lb/hr of various contaminants at SVT-2 would be proportionate to those seen in Table 4-2 for SVT-1 only (since SVT-1 is described as the worst case scenario). • Evidently Honeywell is proposing that the inlet for the second column (SVT-1 and SVT-2) has a different inlet source for SVT-1 only where the inlet source for SVT-1 and SVT-2 has the inlet source for SVT-1 including 2,000 scfm from PSHIA and SVT-2 will be only from the Honeywell property. • On page 4-3 Honeywell now states that “Because the soil vapor concentrations are significantly higher on the Honeywell property (which includes the contaminant source) than on PSHIA property, for the purposes of emissions estimating, it was assumed that SVT-1 treated soil vapor from wells on the Honeywell side only whereas the combined SVT-1/SVT-2 system treated soil vapor from wells located throughout the target treatment area.” This is not consistent with their earlier description, and again we do not believe it represents a worst case scenario. • Table 4-3 Notes should disclose information about the sources for SVT-1 and SVT-2. The notes state that “it was assumed that all chlorine and fluorine ions present in the inlet stream to the thermal oxidizer unit were converted to HCL and HF.” We have a question about the accuracy of this statement in actual operation. Sampling and testing must be required. How does this assumption represent the worst case scenario that is required to be presented in the application? <p>These inconsistencies need to be resolved and the permit application rewritten and resubmitted. There should be clear delineation of the input into SVT-1 and SVT-2 and a true worst case scenario needs to be included in the permit application. The public needs for this information to be presented clearly to be able to adequately comment.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
<p>Response 96 34.G.1.a</p>	<p>The BSVE permit specifies maximum emission limits that are based on SVT-1 and 2 combined. In order to estimate the emission limits, SVT-1 was evaluated for wells on the Honeywell property and SVT-2 was evaluated for wells on the PSHIA. Then the mass inlet rates for the two systems was added together. This provides a maximum. The soil vapor concentrations of all pollutants are much higher on the Honeywell property than on PSHIA property. The Permittee is required to initially operate SVT-1 under AOS-1. SVT-2 can come on-line under AOS-2 as specified by the permit. SVT-2 will be implemented when additional wells on the PSHIA property are required. The permit has been clarified to indicate that this is the case. As far as HCl and HF, assuming that all chlorine and fluoride ions convert to HCl and HF is a conservative assumption that over-estimates emissions of HCl and HF.</p>
<p>Comment 97</p>	<p>Please note that vinyl chloride Maximum PTE after Treatment only increases from 4.08E-02 to 4.10E-02 when going from SVT-1 only (3,300 scfm) to SVT-1 and SVT-2 (combined 5,300 scfm) operating. If the source input into SVT-1 and SVT-2 were both the Honeywell facility this number would be significantly higher. Vinyl chloride is a known carcinogen. The public needs to understand the actual risks that may be involved in the operation of SVT-1 and SVT-2. The Maximum PTE tables must reflect the maximum potential to emit.</p>
<p>Response 97</p>	<p>The small increase in vinyl chloride emissions is due to the fact that the soil vapor concentrations in wells for which SVT-2 will serve are much less than the wells served by SVT-1. The maximum PTE tables in the TSD reflect the combination of SVT-1 and 2.</p>
<p>Comment 98</p>	<p>If the worst case calculations are allowed to stand many questions arise. How will the source input into SVT-2 be guaranteed to only be from the Phoenix Sky Harbor International Airport (the model used in the permit for the PTE numbers)? Will input into SVT-2 be allowed from the Honeywell Facility? If so, why weren't additional PTE tables calculated?</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 98	<p>The model and maximum emissions are established based on the maximum combination of SVT-1 and SVT-2, regardless of where SVT-1 and 2 are extracting at the time. In no case can the emissions exceed the limits specified by the permit. In order to arrive at the maximum emission limits, emissions from both SVT-1 and 2 were added together.</p> <p>The best data available was used to estimate the potential emission rates. The Permittee is required to meet the emission limits included in the permit. Thus, once the permit is issued, it will restrict the potential to emit and the emission limits become the worst-case (i.e., highest) emission rates.</p>
Comment 99	If the Potential to Emit calculations do not represent a worst case scenario they must be recalculated and perhaps several tables presented representing different combinations of source inputs into SVT-1 and SVT-2. The public must be informed of the worst case and given the opportunity to comment.
Response 99	<p>The permit will restrict the potential to emit and the emission limits will become the worst-case (i.e., highest) emission rates. The model and maximum emissions are established based on the maximum combination of SVT-1 and SVT-2, regardless of where SVT-1 and 2 are extracting at the time. In no case can the emissions exceed the permit limits. In order to arrive at the maximum emission limits, emissions from both SVT-1 and 2 were added together.</p>
Comment 100	Concerns over the assumptions used in the modeling were expressed to the County, which was going to inquire into the possibility of sharing the back and forth commenting and correspondence that arose during evaluation of the model. No additional information was provided to the LPNA.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 100	MCAQD has hired a full-time air quality dispersion modeler since the submittal of the final air quality impact analysis (October 2006). The MCAQD modeler has reviewed the analysis and corroborated the findings of the MCAQD consultant assigned to review the modeling analysis. The MCAQD modeler required clarification on certain aspects of the modeling analysis. The analysis meets all U.S. EPA and MCAQD requirements. The Technical Support Document (TSD) (Dated February 13, 2007) published by the MCAQD consultant and the Technical Memorandum published by the MCAQD modeler can be viewed by contacting the MCAQD Records Management Coordinator at 602-506-6201.
Comment 101	DWAZ does not agree with the statement on page 5-14 that “Vinyl chloride with SVT-1 operating alone was the worst case scenario.” While that may be true for the model that was presented in this application, again we do not believe it represents the worst case scenario. We have an additional concern that worst case is used to reflect total concentration of compounds (% of composition of compounds in the stack) and not the actual amount of compounds emitted. The stack is restricted when only SVT-1 is in operation. Even if PSHIA lower concentrations are combined with Honeywell concentrations the total raw numbers are higher and in that sense represent the worst case scenario to the public.
Response 101	The cited verbiage “Vinyl Chloride with SVT-1 operating alone was the worst case scenario” found on Page 5-14 of the Revised Permit Application was unnecessary since modeling was done for each specific scenario (appropriate stack parameters as well as short-term and annual emission rates) explicitly. The application was referring to the modeling scenario that yielded the largest percentage of any AAAQG. Final modeling results for all possible operating scenarios were calculated by the MCAQD air quality modeler and compliance is demonstrated with all applicable NAAQS and AAAQGs.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 102	<p>On page 4-1 Honeywell writes that “The maximum PTE would occur if SVT-1 and SVT-2 were operating simultaneously. However, because the units will discharge through a single stack, the worst-case emissions from an air dispersion modeling standpoint would occur when only SVT-1 is operating. This is due to the lower concentrations expected when wells located on PSHIA are added to the System and the increased air flow rate when SVT-2 is added. Therefore, PTE was calculated for both SVT-1 operating alone and for both SVT-1 and SVT-2 operating together.”</p> <p>As previously noted, DWAZ does not believe this represents the worst case scenario under which both SVT-1 and SVT-2 will be operated. DWAZ believes the worst case scenario is having both units operating with the source from the Honeywell Facility. DWAZ also believes that the calculations presented in Section 4 and Section 5 must be recalculated to reflect the worst case scenario before the air permit application can be appropriately reviewed.</p>
Response 102 34.G.1.a	<p>The MCAQD dispersion modeler has reviewed the submitted modeling analysis. As part of this review, modeling was conducted for all scenarios and maximum model predicted air quality impacts were independently calculated. All scenarios were modeled with proper stack parameters and emission rates for all operating scenarios. The results of the modeling show compliance with all applicable NAAQS and AAAQGs.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 103	On Page 4-4 under “Addition of SVT-2” the application states that “Concentrations of HAPs in the soil vapor from PSHIA wells have generally been lower than those observed on Honeywell property. Because proposed injection/extraction well locations for the PSHIA property have not yet been finalized, a slightly different approach was used to estimate PTE for HAPs associated with the installation of SVT-2 and the incorporation of soil vapor from the PSHIA property. To be conservative, the maximum concentration of each compound observed anywhere on PSHIA property was assumed to be the concentration that will be treated if SVT-2 is installed.” Again, we do not believe this is consistent with other statements the air permit application and does not represent a worst case scenario.
Response 103	The methodology for adding PSHIA concentrations is consistent with the methodology for wells on the Honeywell property; it is simply a more conservative method of estimating concentrations. The emissions from the BSVE cannot exceed the permitted limits regardless of where the extracted vapor is coming from.
Comment 104	Because the site is not well characterized, DWAZ is concerned about how any of the concentrations used in the modeling can be evaluated. DWAZ has questions about the assumptions and parameters of the model and request an independent evaluation of the model.
Response 104	The MCAQD consultant and the MCAQD air quality modeler conducted independent reviews of the modeling analysis and all input assumptions. The modeling analysis demonstrates compliance with all applicable NAAQS and AAAQGs and was conducted in a manner consistent with all EPA and MCAQD requirements. The modeling analysis conducted for the Revised Permit Application is deemed to be complete by both the consultant and the MCAQD air quality modeler.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 105	<p>A concern remains that oversight under a Title V Air Permit will not provide the same level of oversight that would be provided under Superfund despite assurance from ADEQ’s Director of Tank Programs Division, Phil McNeely, that it does. In a February, 2007, conversation in response to this assertion Director McNeely was asked to provide, in writing, what steps would be taken, how this would be accomplished, the frequently and time table for actions, and any other evidence to support the equivalency of oversight provided by the two programs. Director McNeely responded that he would not and that it would be “inappropriate” to do so.</p>
Response 105	<p>MCAQD is responsible for providing oversight of the air pollution control systems and aspects of the project. This oversight includes:</p> <ol style="list-style-type: none">1. Regular inspections by trained MCAQD inspectors2. Review of performance/stack tests3. Review of monitoring records and semiannual reports4. Review of excess emission reports (due within 24 hours)5. Review of deviation reports (due within 2 working days)6. Review of annual compliance certifications <p>The inspections conducted by MCAQD are very detailed and include the following:</p> <ol style="list-style-type: none">1. File review of reports and compliance certifications submitted to the MCAQD2. Physical inspection of the process and control systems3. Inspection of monitoring records4. Inspection of maintenance records <p>The MCAQD has the authority to take enforcement action against the Permittee for any permit violation. Finally, because this permit is issued under Title V of the Clean Air Act, the operation is also subject to review and oversight by the United States Environmental Protection Agency. Please refer to the attached letter from ADEQ for additional discussion.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 106	A concern over the lack of adequate site characterization: one of the main concerns is that the Light Non-Aqueous Phase Liquids (LNAPL) site has not been fully characterized and that the concentrations of the Hazardous Air Pollutants (HAPs) used for the modeling may not be the worst case scenario. A lower water table has been observed at the site. If the water table rises (and drops) again, more contaminants from the free phase would be left in the soil increasing the soil vapor concentration.
Response 106	The commenter asserts that the emission estimates and resulting emission limits may not represent the worst-case scenario (i.e., highest emission estimate) because they assert that the site has not been fully characterized and because of possible changes in the water table. The emission estimates were developed using site sampling data and the expected performance of each control system required by the permit. MCAQD conducted a detailed review of the emission estimates provided by the applicant. Based on this review MCAQD has determined that the emission estimates reflect the highest expected emission rates considering the application of control systems required by the permit. While the emission estimates are important, such estimates are not the only factor used in establishing the emission limits. The resulting emission limits developed by MCAQD are based on the results of the ambient air quality modeling analysis, the controls required by the permit, and the regulations that apply to this facility. The Permittee must meet the emission limits required by the permit whether or not the emission estimates presented in the permit application reflect the "worst-case scenario". Performance testing and monitoring required by the permit is intended to ensure that these emission limits are met. Please refer to the attached letter from ADEQ for additional discussion.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 107	<p>On April 19, 2007, at a joint Community Advisory Group (CAG) and LPNA Technical Assistance Grant (TAG) meeting the Motorola 52nd Street Superfund Site CAG unanimously passed a motion requesting that any permits issued by Maricopa County be reviewed by Superfund regulators under the most stringent current guidelines to be sure that they are met and that air quality permits not be based on manufacturing standards, but the fact that this is a clean-up should be carefully considered in whether or not such a permit is issued. Also that in issuing the permit the characterization of the site should be carefully examined to determine if it will have a future impact. A second motion was passed unanimously that the Technical Assistance Grant recipient, the Lindon Park Neighborhood Association, and its technical advisor represent the CAG at the Air Permit Public Hearing. The CAG also expressed its concern that the County does not send out a mailing with the notice of Public Hearing. The notice is published only in the newspaper. It was pointed out that the County must have a process to get permit hearing notices to concerned parties.</p>
Response 107	<p>A representative of the USEPA Superfund Division reviewed and commented on the proposed permit. All comments from the USEPA were addressed.</p> <p>The MCAQD provided public notice and an opportunity for public comment as required by County Rule 210, Section 408. The notification was published twice in each of the following newspapers: the Record Reporter, the Arizona Business Gazette, and the Arizona Republic. In addition, MCAQD mailed a notification of the proposed permit to all persons on the MCAQD public notice mailing list. Finally, the MCAQD web site contains public notices. Anyone interested in joining the air quality permit mailing list may contact Diana Gonzalez at 602-506-6094 or dianagonzalez@mail.maricopa.gov.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 108	A principle concern is that federal Superfund contaminants at an active Superfund Site should not have air emissions covered under a Title V Permit for new source emissions. Maricopa County has no authority over Superfund air emissions. Superfund CVOC's should be under Superfund authority. This is not a new source and CVOC contaminants which are part of a Superfund Site clean-up should not be allowed to be transferred from one medium, the soil, and released into another medium, the air.
Response 108	Direct transfer from soil to air is not allowed under the air quality permit. Control systems must be implemented to reduce emissions of air pollutants which are associated with the clean-up. Please refer to Response 42 and the attached letter from ADEQ for additional discussion.
Comment 109	What potential unintended consequences might arise from allowing Superfund CVOCs to be permitted under a Title V Permit? How might this be used in court? Would this set any precedent for other responsible parties at Superfund sites to successfully argue to be allowed to emit higher levels of VOCs or to remove air emission controls totally. In 2003 Motorola proposed removing the carbon canisters at Operable Unit 1 of the Motorola 52nd Street Superfund Site and then voluntarily elected to replace the cracked canisters in the face of stiff public opposition. Motorola is currently negotiating the possible removal of air emission controls at the North Indian Bend Wash Superfund Site. What assurances do community members have that there will be no legal ramifications that will weaken air emission controls in the future in Maricopa County, in Arizona, in Region 9? Honeywell has been described as preferring "to litigate than to remediate." Is there a way that Honeywell will be able to take the County or ADEQ to court over the requirements for air emission controls? Might Honeywell apply for another Title V Air Permit modification for this clean-up in the future? If Honeywell submits any additional revision to the Title V permit involving the BSVE system or the clean up of the jet fuel and CVOC contamination, the permit application revision, whether significant or minor, must go to public comment.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 109	<p>Refer to Responses 42 and 108.</p> <p>MCAQD has no authority over Superfund determinations. MCAQD cannot comment on how the Superfund determination might be used in court and cannot comment on whether issuance of this permit will set any precedent for other responsible parties at Superfund sites.</p> <p>With regard to assurances that there will be no legal ramifications that will weaken air emission controls in the future, MCAQD cannot predict what regulatory changes, if any, will be implemented in the future and cannot therefore assure that there will be no weakening of control requirements. However, considering the attainment status of Maricopa County, a weakening of control requirements is not likely. The permit includes all air pollution control requirements that apply at the time of issuance.</p> <p>MCAQD cannot prevent any Permittee from appealing a permit action or from taking the MCAQD to court. However, the permit is written to include all applicable regulatory requirements and MCAQD is confident that there would be no grounds for a challenge to this permit.</p> <p>MCAQD cannot prevent any Permittee from submitting a permit application to revise the permit in the future. Please refer to the attached letter from ADEQ for additional discussion.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 110	<p>Since the site has never been fully characterized there cannot be any projections as far as how long this system will be place. Community members have a concern for how long residents will be potentially exposed to these air emissions. MCAQD has indicated that Honeywell estimates this proposed clean-up running 7 to 10 years. Consultants for Honeywell have stated at two public community meetings an estimate than within 18 to 24 months the thermal oxidizers could be removed and the clean-up would consist of air injection only. What are the bases for this projection and why is it not included in the application? Is it possible no air emission controls will be in place in as little as 18 months? Could the air injection only phase extend for 10, 15, 20 years? How can this permit be allowed to go forward without better site characterization? If concentrations of CVOCs are higher than predicted, how will this affect the design, the potential emissions, the potential for breakthrough, and the potential for non-detection?</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 110	<p>When emission sources are permitted, the potential for ambient air quality impacts is evaluated assuming continuous operation for an indefinite length of time. Therefore, MCAQD did not request information related to the duration of the clean-up and cannot comment on the expected duration. The worst case emissions and potential impact must be and were considered for an indefinite length of time. The influent pollutant concentrations determine the duration of each phase of the project. Emission controls cannot be changed at the BSVE unless the various soil vapor trigger concentrations specified in the permit are met (as specified for the alternate operating scenarios). There is no operating scenario for the BSVE that allows for bypass of emission controls.</p> <p>MCAQD asserts that the site is fully characterized for air pollution control permitting purposes. An unexpectedly high concentration of chlorinated solvents will be detected through vapor extraction well monitoring which is to occur within 60 days following startup and annually thereafter. At least monthly vinyl chloride (a chlorinated solvent) sampling of the first PPA vessel in series is also required. The emission limits and therefore potential to emit will remain unchanged even if the concentration of chlorinated solvents in the soil is higher than predicted. The robust design of the system is not expected to change if the estimated concentration is found to be too low. There are two PPA vessels in series that remove chlorinated solvents. The first PPA vessel in series is changed out based on sampling of the effluent from the first treatment system. The second PPA vessel will serve to ensure that chlorinated solvents will be removed even if the first vessel experiences breakthrough earlier than anticipated.</p>
Comment 111	Honeywell must be required to disclose the worst case and most probable case quantities of jet fuel and other CVOC contaminants in the soil, in the free product plume and dissolved in the groundwater. If worst case and probable case quantities were disclosed for the soil independent calculations could be made and estimates derived for length of various remediation procedures.

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 111	When emission sources are permitted, the potential for ambient air quality impacts is evaluated assuming continuous operation without a limit on the duration of operation. Therefore, the worst case emissions and potential impact must be and were considered. The BSVE system only applies to the soil vapor contamination.
Comment 112	The soil vapor extraction process is being used to remediate the soil in the vadose zone in addition to removing the hydrocarbon free phase. However, the dissolved contaminant in the groundwater has not been addressed yet. A later technology could be proposed to remediate the groundwater that could increase the vapor concentration in the soil.
Response 112	This permit is only for the BSVE system and only for the soil vapor contaminants. If additional treatment systems are needed for groundwater remediation and those systems have a potential for air emissions, another air permit or permit revision from MCAQD for those additional systems would be required. Please refer to the attached letter from ADEQ for additional discussion.
Comment 113	Inconsistency of this remedy with the Second Five Year Review of the Operable Unit OU2 for the Motorola 52nd Street Superfund Site developed by LFR, Inc., and ADEQ that cites as a deficiency and concern (and as a subsequent corrective action and recommendation) that the final Superfund remedy must consider and integrate the Honeywell light non-aqueous phase liquid (LNAPL) remedy. Incorporation into the CERCLA process might allow the use of alternative remediation technologies other than the one being proposed.
Response 113	This permit is only for the BSVE system and only for the soil vapor contaminants. If additional treatment systems are needed for other remediation and those systems had a potential for air emissions, another air permit or permit addition from MCAQD for those additional systems would be required. Please refer to the attached letter from ADEQ for additional discussion.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 114	<p>Community concerns have been raised about Honeywell's track record as evidenced by the recent \$500,000 penalty ADEQ issued to the Honeywell facility outside Kingman, AZ, for violations to the states' hazardous waste laws, violations the ADEQ director called "a recipe for disaster." As reported in the <u>Phoenix Business Journal</u> on February 23, 2007, "ADEQ inspectors discovered in September 2005 that the Honeywell Aircraft Landing Systems facility near Kingman was operating two gas-fired hazardous waste thermal treatment units without the required hazardous waste treatment permit. . . In addition to charges related to operating the waste treatment units without permits, ADEQ charged Honeywell with underreporting its hazardous waste." <u>Waste Age</u> reported that "In addition to operating without a permit, Honeywell Kingman was also cited for failing to submit signed manifests, failing to properly label each container and tank as hazardous waste, failing to inform employees of proper handling and emergency procedures and failing to comply with personnel training requirements."</p>
Response 114	Comment noted.
Comment 115	<p>According to Federal law a Title V permit may be issued only if the conditions of the permit provide for compliance with all applicable requirements. Given the record of Honeywell's actions at other sites, at this site under the Superfund program, and its subsequent violations until the Title V permit issued in January, 2006, a Title V permit modification must not be issued to the facility because the permit cannot assure that the facility will comply with the law.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 115	<p><u>This permit is the vehicle used to assure compliance with the applicable laws and regulations. It is the Permittee’s responsibility to comply with the requirements of the permit, including monitoring, recordkeeping, and reporting requirements. A violation of the permit requires immediate corrective action. The Maricopa County Air Quality Enforcement Division is responsible for enforcing and requiring compliance with federal, state and county air pollution regulations. The Enforcement Division seeks to deter future air quality violations and level the playing field with compliant companies. A number of mechanisms are used to enforce the requirements of the permit. These include:</u></p> <ul style="list-style-type: none"> • <u>Civil (monetary) penalty</u> • Recovery of economic gain from non-compliance activity • Supplemental Environmental Projects [SEPs] • <u>Criminal action</u>
Comment 116	<p>DWAZ would like to reiterate its belief that the permit application submitted by Honeywell is not clearly written and does not present worst case scenarios. We request that Honeywell be required to submit clarifications to its permit application and that MCAQD amend the draft permit revisions and reissue the amended draft for public comment.</p>
Response 116	<p>MCAQD believes that the permit is as clearly written as possible considering the numerous control systems to be used. Refer to response to Comment 106 for a discussion of the worst-case scenario.</p>
Comment 117	<p>Under AOS-1, -2, and -3, downstream of the thermal oxidizer(s), the quenched flue gas stream to the VGAC units will have very low concentrations of VOCs and benzene at a temperature of roughly 140F. Have carbon adsorption capacities and projected carbon usages been calculated for VOCs and benzene at these very low concentrations at roughly 140F? Possibly, carbon change-outs could be frequent, resulting in lengthening the time to accomplish remediation.</p>

WRITTEN COMMENTS

Comment #	Comments/Responses
Response 117	Carbon change out requirements would not likely increase the remediation time as the system includes backup carbon vessels in case breakthrough occurs. It is expected that the downstream VOC concentrations entering the carbon vessels will be very low (since the thermal oxidizer will have destroyed over 99% of the inlet concentrations). Therefore, frequent carbon change out is not expected.
Comment 118	Under the performance testing section, the means of measuring VOC concentrations is not specifically referenced. The VOC concentration units expressed in this section could imply that a laboratory analysis is not required. To avoid confusion on this matter, suggest that the performance testing section of the permit reference the previous section where the means of measuring VOC concentrations is presented.
Response 118 34.E.3.a.i	The methods of testing have been grouped so that a reader can find all of them easily. The test methods are specified in Section 34.E.(3). VOC testing is required by USEPA Method 25 or 25A. The permit was revised to specify Method 25A, with speciated VOC results. Refer to Response 4 for additional discussion.
Comment 119	Under G. AOS-2, 2) v., the stated permit condition infers that the combined thermal oxidizer flow rates cannot deviate from 5,300 scfm. The City of Phoenix believes that Alternative Operating Scenario 2 is to be operated so that the combined maximum thermal oxidizer flow rate is never greater than 5,300 scfm. Stating a maximum flow rate appears to be inconsistent with also stating that criterion to be in effect "at all times." Note that Alternative Operating Scenario 1 does not use the words "at all times." It may be necessary for efficient conduct of remediation for certain periods of operation to occur at less than the maximum flow rate. Suggest striking the words "at all times" so that the permit does not infer that the combined thermal oxidizer flow rate cannot be less than 5,300 scfm.
Response 119 34.G.2.v	The permit was revised accordingly.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 120	If chemicals (e.g., scale inhibitor) are to be applied to the cooling water (and subsequently enter the atmosphere through evaporation of drift), are the quantities of these chemicals considered to be de minimus?
Response 120	Yes. The cooling tower is an extremely small tower, with water flow rates of 231 gallons per minute and a drift rate of 0.005%. Appendix D of the MCAQD rules includes a list of insignificant activities, and states that a cooling tower is insignificant if it meets the following two conditions: (1) the circulation rate is less than 10,000 gpm and (2) the cooling tower is not used to cool process water, water from barometric jets, or water from barometric condensers. The water circulation rate of the tower is at least one order of magnitude lower than the maximum allowable circulation rate as defined in Appendix D. Therefore, the tower is an insignificant activity.
Comment 121	The City of Phoenix requests that the Permit have some degree of flexibility with regard to equipment and well locations. There may be changes in optimum locations between the permit application time and either the final design or during operations.
Response 121	The BSVE permit addition does not specify well locations. The location of the above ground BSVE system has been specified and is part of the dispersion modeling assessment. Therefore, the location of the above ground BSVE system stack cannot be changed without a permit revision.
Comment 122	How have interference and/or masking effects in laboratory testing of samples from the site affected the reported contaminant levels used as the basis for the model for Potential to Emit numbers?
Response 122	Well monitoring has been conducted under the auspices of the ADEQ with appropriate spikes, splits, and other quality control and assurance mechanisms. MCAQD has accepted the data reviewed by ADEQ as representative.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 123	At Building 140 Honeywell employed Soil Vapor Extraction to remove chlorinated solvents. This was done without appropriate oversight and without the necessary air permit- as an estimated 400,000 pounds of petroleum hydrocarbons were removed. Honeywell did not have an air permit and have stated that they did not realize fuel was being removed until after the SVE was completed and more than a metric ton of CVOCs (primarily trichloroethane, TCA) was removed. Honeywell had to back calculate the amount of fuel removed by the SVE system. This is one example of why the community members believes careful, consistent and constant oversight is necessary during this remedy.
Response 123	Comment noted. MCAQD will oversee the air pollution aspects of this project as requested by the commenter.
Comment 124	One component of the September 19, 1999 Arizona Department of Environmental Quality (ADEQ) Administrative Order on Consent (AOC) required the Honeywell 34th Street Facility site be fully characterized. In June of 2007 - nearly eight years later – the site is still not fully characterized. Under the AOC Honeywell is required to disclose all potential sources, however, ADEQ continues to uncover new sources and incomplete information provided to ADEQ. An example would be ADEQ being told that all sumps were removed in 1965, yet not being told that they were replaced with an interceptor.
Response 124	MCAQD does not enforce the ADEQ's AOC. For a discussion of the site characterization as it relates to the air quality permit, refer to Response 106.
Comment 125	In the permit application did Honeywell include the entire content of the dealing with efficiencies of pollution control equipment? If not, would they provide the missing text?
Response 125	The permit application was reviewed by the MCAQD and determined to be complete and sufficient for determining emission control efficiencies and emissions.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 126	How would use of jet fuel (instead of natural gas or methane) in any of the models or calculations presented in the permit or permit application have changed estimates in the permit?
Response 126	The emissions estimates included a combination of natural gas and jet fuel-related emissions. Natural gas is required to be used for supplemental fuel. Emissions of criteria pollutants (other than VOCs and HAPs) were estimated assuming natural gas fuel. Emissions of VOCs and HAPs were estimated assuming jet fuel and other VOCs in the inlet stream.
Comment 127	An earlier pilot test run by Honeywell, I believe in 2003, seemed to indicate almost immediate breakthrough. Although this was caught by ADEQ, Honeywell and its consultants did not recognize the data as supporting breakthrough. Were data, results, and conclusions from this earlier pilot test (before the CAP approval) considered? If not, would MCAQD or U.S. EPA take these data into consideration?
Response 127	The emission limits established for the BSVE system are a function of the system design and operation, including the data from the monitoring wells. Please refer to the attached letter from ADEQ for additional discussion.

WRITTEN COMMENTS

Comment #	Comments/Responses
Comment 128	Conversations with MCAQD staff have revealed several assumptions that seem to be routinely made about Title V applicants and permits that may not be valid in this situation. Although I understand that most applicants would have reason to overestimate emissions (to receive higher permitted levels). I believe there may be reasons Honeywell has underestimated their Potential to Emit numbers. One effect has been to minimize the vinyl chloride numbers. Another assumption is that signing a Compliance Certification statement that "the statements and information in the permit application are true, accurate, and complete" will be a deterrent. I lack faith in that assumption. Given the history of actions at this site, MCAQD's reliance on self-reporting and the risk of fines as an effective deterrent may not hold up in this case. I hope the permit will incorporate sufficient protections to hold up the saying, "Trust, but verify."
Response 128	The permit application accounted for maximum concentrations in the monitoring wells and maximum potential emission rates. Since the emission limits in the permit must be met under any circumstances, the permit applicant has no incentive to underestimate emissions. MCAQD conducts inspections to verify report contents and evaluate the facility's compliance status.

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Comment 129	If I understand the little picture I was just looking at, the air injection system, does that actually penetrate into the aquifer?
Response 129	No. The system is designed only for soil vapor remediation.
Comment 130	The question that I have is obviously we have a pollution issue in the City of Phoenix right now, and if we're taking air just straight out and pumping it down into the ground water -- or down into the soil, are we actually maybe increasing the pollution issue, or do we need to have some kind of scrubber or something on the intake that we're pumping down into the ground?

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Response 130	The amount of contaminant that is in the air that would be taken from the atmosphere and then pumped into the ground is extremely, extremely small compared to the concentration and contaminants in the soil vapor, so the contribution from the ambient air to the total amount in the soil is insignificant.
Comment 131	How much leakage is happening from the current pollution and subsequently the small amount coming in from the air that's actually going down into the water that of course profoundly affects everyone downstream?
Response 131	This permit is for the BSVE system that treats soil vapor. Questions related to potential ground water contamination need to be referred to the Arizona Department of Environmental Quality.
Comment 132	And the question that I had, you referred earlier in your presentation about certified reports, semi-annual certified reports? Who certifies those? Is that somebody in your department? Is there an industry standard that's licensed by the State or by the federal government? Who certifies those reports?
Response 132	All semiannual reports submitted to the MCAQD are required to be certified by the responsible official of the permitted source. They responsible official must certify the reports as being true, accurate, and complete. The MCAQD reviews the reports.
Comment 133	I understand that they're on the hook and everything, but the truth is, is that when the same entity is certifying something's true, there's a potential for motivation for information to be inaccurate, and it's one of the reasons we have SAR -- in the world because that's what can happen.
Response 133	Providing false data to the MCAQD would subject the Permittee to enforcement action which can include criminal penalties.

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Comment 134	Have you already signed an agreement with this company allowing them to install this equipment before the public hearing like you did with the Phoenix Brickyard?
Response 134	No.
Comment 135	What process did your agency go through to make certain that you did not violate the civil rights of people in this area when you filed this permit, or environmental justice issues? I would assume you have a normal procedure for making certain that you don't violate Title 6 of the Civil Rights Act following the EPA guidelines that they give your agency about environmental justice?
Response 135	As with all permits, the public notification requirement and the MCAQD Environmental Justice Policy was followed in issuance of this permit.
Comment 136	Do you have a written procedure for [the Title 5 program] specifically about civil rights?
Response 136	The MCAQD Environmental Justice Policy has been followed in review and issuance of this permit.
Comment 137	I was a stakeholder for a while in this process of implementing the hazardous air pollutant laws here in the state, and I'm quite surprised to find the AAAQGs mentioned here and being used here, because my understanding, those are roundly rejected as not being sufficient to protect public health and safety, and I frankly thought I'd never see another reference to them. And instead, I see them all through this. Can you explain that?

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Response 137	The permit is reviewed in accordance with the rules in effect at the time the permit application is deemed complete. At the time that the permit application was declared complete, MCAQD had not yet implemented the new Arizona HAPs rule, therefore, the permit was evaluated against the AAAQGs. Since that time, however, the MCAQD has implemented the new HAPs rule. The proposed permit was evaluated with respect to the new HAPs rule and the permit meets those requirements as well as the AAAQGs.
Comment 138	Did you look at all the other air contaminants being emitted by other facilities in this area, ambient, you know, issues, or did you just look at the emissions from this proposed addition?
Response 138	At the current time, cumulative modeling for criteria pollutants (e.g., PM10, SO2, NO2, CO) is only required for new major sources or major modifications. There are no EPA, State or local regulations which allow for cumulative impact modeling for HAPs.
Comment 139	So there was no examination of a cumulative impact?
Response 139	See Response 138.
Comment 140	I notice in the proposed permit that there is an odor log, and I gather that citizens that may smell an unusual odor here are supposed to contact the company and complain. Am I not mis -- is that what I read -- in the proposed permit?
Response 140	There are requirements in the permit for maintaining an odor log. Should the facility receive complaints directly, they are expected to keep a log of such complaints. Citizens can always submit a complaint to the MCAQD for odors. Citizens may submit complaints to 602-372-2703.

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Comment 141	Is there any kind of community education program to let people here know what they might be smelling so they'll know what to complain about?
Response 141	There are no education programs that are specific to odor.
Comment 142	As a practical matter how would people know?
Response 142	The MCAQD web site provides information about air quality issues (www.maricopa.gov/aq). This includes information about submitting a complaint or notifying the MCAQD of a suspected violation. Complaints can be submitted on line or by phone at 602-506-6010.
Comment 143	Is there a way to contact your agency at night or on weekends in case there's an odor problem during that time frame?
Response 143	MCAQD does not currently have staff to investigate complaints at all times of the day and night. Complaints can, however, be submitted at any time on line (www.maricopa.gov/aq) or by calling 602-506-6010.
Comment 144	Other technologies are available to handle this soil vapor extraction. Did -- was there an examination of other technologies that would not releasing into this community these toxins? I mean, basically removing these and taking them offsite to an unpopulated area to be disposed of or incinerated?
Response 144	MCAQD is required to evaluate the system as proposed by the permit applicant and then determine whether the proposed system is capable of meeting the rules and regulations of the MCAQD. MCAQD does not require an applicant to evaluate alternative technologies as long as the proposed technology meets the regulatory requirements.
Comment 145	Is there another better alternative that doesn't involve releasing the dioxins and other chemicals into the community?

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Response 145	MCAQD has determined that the proposed soil vapor extraction and air pollution control systems are designed to meet the applicable laws and regulations.
Comment 146	The nine tons per year of your single HAP, the 22.5 tons per year for all HAPS, is many times multiple of the projected emissions, and this is a pattern with this agency, but I think that violates the law, and I say it also violates the civil rights of people in this area because there should be a limit, should be simply what they expect the emissions to be, certainly not a multiple of many times that.
Response 146	The hazardous air pollutant (HAP) limits described by the commenter are intended to ensure that the entire facility will remain below the major source threshold for HAPs. This type of limit is common in many permits because many facilities do not wish to be categorized as a major source for HAPs. The HAP emission limits for this project are included in Table 34-1 of the permit and are much lower than the rates described above. Refer also to Response 52.
Comment 147	The other thing that concerns me is the Title V permit must be enforceable as a practical matter, but some of the record keeping requirements that are in this permit do not have that information available to the public so that they can enforce that, so that's another comment. The other one is that the technology that is plan, you plan to use here, the minimum temperature for this technology should be at least 1600 degree Fahrenheit, and I think the permit needs to be modified to include that.
Response 147	MCAQD has determined that the permit is enforceable as a practical matter because each emission limit is supported by monitoring, recordkeeping, and reporting requirements. In the permit, the minimum operating temperature of the thermal oxidizer is restricted by the temperature observed during the most recent performance test but not lower than 1400°F. The permit requires a report of all permit deviations and such reports are available to the public by contacting records management at 602-506-6201. Refer to Comment 80

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Comment 148	<p>When I was involved with the Superfund TAG Grant (phonetic) Committee for this area, we did a tour of Honeywell about ten years ago. They had just been caught from the Arizona Department of Environmental Quality for some very severe violations of something on site, and they were -- the proposed fine was like \$750,000. I think they only got fined 75, but I know as, you know, a glimpse of your enforcement, you may find it useful to compare notes with the Arizona Department of Environmental Quality and see if you've got a repeat offender or the same pattern of violations.</p>
Response 148	<p>MCAQD has worked with the Arizona Department of Environmental Quality throughout the permit process, and communication between the agencies is expected to continue. Please refer to the attached letter from ADEQ for additional discussion.</p>
Comment 149	<p>One of our main concerns is that it does not represent the worst case scenario, and that the potential to emit numbers in the tables do not represent the worst case scenario for all of the contaminants. We also have a very strong concern that not enough contaminants are going to be tested and monitored for.</p>
Response 149	<p>The key parameters are monitored for as well as additional operational and other monitoring and testing to ensure that the emission limits are met. Refer to Response 10.</p>
Comment 150	<p>In the actual application the input source streams for the two thermal oxidation units, SVT1 and SVT2, are described throughout that permit application, and depending on where you want to read in the permit application, the inputs to SVT1 or the input into SVT2 is described differently. Sometimes it's off the Honeywell facility. Sometimes it's off the Phoenix Sky Harbor International Airport. Sometimes it's off both of them. Sometimes going into one or the other. However, all of the -- the only tables presented have one scenario with those numbers.</p>

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Response 150 34.G.1.a	The permit will be clarified to only allow AOS-2 to be implemented (allow SVT-2 to be installed) only after the wells on the PSHIA property have been phased-in.
Comment 151	But what I'm asking is -- because when I read the air permit, I see nothing that states how you're going to ensure that the input source into SVT1 is -- because it is even within your air permit sometimes described as coming both off of, I believe, coming both off of the Honeywell facility and the airport. And how are you going to ensure that SVT2 does not ever have any input source that comes off of the Honeywell facility when it is run?
Response 151 34.G.1.a	Refer to Response 150.
Comment 152	So my question is, are you going to allow SVT2 and SVT1 to run with the in -- the inlet force being the Honeywell facility; would you allow both of them to run with that? Off of, off the Honey well facility?
Response 152 34.G.1.a	Refer to Response 150.
Comment 153	We also have a concern about the way the thermal oxidation unit was spec'd. In the original application Honeywell said that they would later make a decision between a flame technology and a flameless technology. However, my understanding after meeting with the county and reading the air permit, is that it's -- the air permit is written in such a way that it will have to be a flame technology, and so we have some concerns over that.
Response 153	The proposed thermal oxidizer is flame technology.

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Comment 154	But we have a major concern over the temperature range that has been spec'd in this because in the temperature range that you spec, which is 1400 degrees Fahrenheit to 1800 degrees Fahrenheit, between 1400 and 1600 degrees you're going to have the formation of the dioxins -- from the incomplete combustion, and we don't understand why the county has spec'd this in this way. Our research and -- you know, indicates that a different temperature range would be much more appropriate.
Response 154	Refer to Comment 80.
Comment 155	A lot of the residents and community members do have a concern over the lack of the site characterization, and while I had the feeling it sounded like the site was well characterized. This is not a well characterized site, and in fact it's described as not being a well characterized site. And, you know, we have, do have concerns about that, about this going forward with a 60 percent design, you know, and the air permit, you know, being given before there's a final design, before there's a final characterization, because we believe that understanding what's at the site and the quantities of different types of contaminants at the site is important to both the design, the ability of the control equipment to function properly and as anticipated. And also as far as how long the community may be at risk from having this remedy up and running, and so we'd like to express that concern.
Response 155	The site characterization and extent of the contamination in the soil has been determined through other studies and agencies. The existing soil vapor extraction wells have been monitored for several years, and a pilot test was conducted for the proposed BSVE system. The proposed equipment and system design have been reviewed and emission limits established to protect the community. Monitoring and reporting requirements will ensure that the emission limits are met. The ambient impact assessment was based on worst case conditions as if the system was operational for an unlimited amount of time. Therefore, the worst case potential impact has been assessed, as the system will not in fact be operational for an unlimited amount of time.

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Comment 156	We do have a lot of concerns over the amount of compliance, the inspections, about the way this will be monitored, about the -- about there not being a lot of oversight during the ramp up of this, from what I can tell from reading the permit. You know, we were -- I was assured by ADEQ that the oversight over this remedy would not be different under the tank division's program versus the Superfund program. However, I believe under the Superfund program the oversight that would be on the ground and at that plant while the remedy is being ramped up and is coming online would be much different than what's outlined in this air permit.
Response 156	This permit has been reviewed by the USEPA Superfund division as well as the Arizona Department of Environmental Quality. Comments from these agencies have been incorporated into the permit. Oversight will be conducted by MCAQD for the air pollution aspects of this remedy. Please refer to the attached letter from ADEQ for additional discussion.
Comment 157	And so we would ask that that be revisited, as well as the amount of compliance that's required, how often they go out and test. We would like to have split samples that are collected by the county and tested.
Response 157	Unlike water pollution sampling, testing of most air pollutants does not allow for split sampling. MCAQD does witness and review all stack testing conducted to ensure that proper methods are used.
Comment 158	Another concern over the lack of adequate site characterization has to do with the light non-aqueous phase liquids, and the concentrations of the hazardous air pollutants, HAPS, used for the modeling, that they may not be the worst case scenario. A lower water table has been observed at the site. If the water table rises and drops again, more contaminants from the free phase would be left in the soil, increasing the soil vapor concentrations. That's just one way where that could have an effect.

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Response 158	The BSVE system is only for remediation of the soil vapor contamination. Additional treatment systems may be needed and will be permitted separately if those systems have a potential for air emissions. The emission limits of the BSVE system must be met regardless of a change in water table elevation.
Comment 159	We do feel like the Title V permit is not the appropriate permit for these Superfund CVOC that are commingled with the jet fuel, that the oversight for those really does belong with Superfund, either EPA or with the ADEQ Superfund. And we have concerns over a potential precedence that may be set by this, and how that may impact this site or other sites in the future as, you know, if this goes forward and is granted for this type of clean up.
Response 159	MCAQD is not in a position to determine whether this project should fall to the EPA or ADEQ Superfund. Please refer to the attached letter from ADEQ for additional discussion.
Comment 160	One of the other neighborhood leaders, who is not able to be here today, asked me to express his concerns. He wanted to know how the, you know -- he did make the statement that the pollution doesn't stay in one area in the air or the ground water. And then he asked the question, "What is the effect when it reacts with the horrible air we already have?" So I thought that was kind of interesting and I wanted to pass that one along.
Response 160	The amount of contamination that is in the air that would be taken from the atmosphere and then pumped into the ground is extremely, extremely small compared to the concentration and contaminants in the soil vapor, so the contribution from the ambient air to the total amount in the soil is insignificant.

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
<p>Comment 161</p>	<p>I don't know if this is for you or ADEQ, but do we know what the percentage of people in the area that have respiratory problems currently? Because that should be a factor in whether or not this permit is issued. And the other thing that goes along with that would also, do we know what the cancer rate is all cancers in this area as compared with all of Maricopa County?</p>
<p>Response 161</p>	<p>MCAQD does not track respiratory problems or cancer rates in this area.</p>
<p>Comment 162</p>	<p>So how can we raise the issue so that that can be taken into account? Because if it is found, based on what Motorola and Honeywell have already done in the area, and then we're adding to something that could already be the tip of a iceberg, that's like adding fuel to a fire.</p>
<p>Response 162</p>	<p>The means to raise any issue regarding a change in laws or rules would be through the legislative process.</p>
<p>Comment 163</p>	<p>I believe that in some way, shape, or form that we should not be considering a permit for somebody that is already in compliance, and I don't know what the rules are -- I would like to know what they are -- but why are we going to give somebody something that we already got problems with them over here? I think people should have to earn what they want, but if they are already doing something over here and we can't trust them, now they are asking to do something else. How can we trust that they are going to do what they are going to do? I don't understand what that makes sense.</p>
<p>Response 163</p>	<p>It is important to note that the proposed change does not involve expansion of production capacity or replacement of production/process equipment but rather installation of a soil contaminant removal system. MCAQD has determined that the proposed operation is capable of meeting the applicable air quality requirements. MCAQD will monitor compliance through site inspections, review of reports, and performance tests. Any violation will subject the Permittee to enforcement action including monetary and/or criminal penalties. MCAQD believes the enforcement program has resulted in improved compliance rates in Maricopa County.</p>

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Comment 164	<p>And typically, future behavior is based on past behavior, and I just want to make sure that it's in the record that I can't see allowing somebody to do something over here, new, when they have not complied. There should be some kind of time frame. And like I said, you probably can't answer this, but there should be some kind of time frame so that if you have a non-compliance issue, either pending or it has happened within X years, you should not be allowed, because I can't trust you, and now you want me to trust you over here? That's, that's not common sense, and, you know, I'm not fussing at you. but I can't understand what that make sense. And I need to know what I need to do, other than be here, to make that more of an issue, not only with Honeywell today, because I'm pretty sure that most of the people that were going to be working at that facility don't live in the general area. I don't know that for a fact, but I would imagine that most of them don't, and so what else is it that I need to do to see that until they meet -- maybe it can be suspended or something until they are in compliance, and then we come back and have another hearing. And I understand you guys have done a lot of work, but this just doesn't make sense.</p>
Response 164	Refer to Responses 162 and 163.
Comment 165	<p>Do you consider an applicant's past record as to whether they've been, you know, a good corporate citizen in terms of compliance with the rules and regulations that you're responsible for; do you consider their past record when you look at an application from them? Does it have any weight at all?</p>
Response 165	MCAQD does consider the past compliance record in preparing an air quality permit, particularly in the case of a renewal permit. The compliance history is reviewed and may be used in developing the permit conditions. In some cases, a compliance plan or schedule is included. Also, MCAQD may impose additional testing, monitoring, recordkeeping, and/or reporting requirements as a result of the compliance history.

VERBAL COMMENTS (from public hearing)

Comment #	Comments/Responses
Comment 166	Do you anticipate being clear with, cleared with your investigation and your settlement or whatever with the, with Honeywell before this permit is acted upon by your agency?
Response 166	No.
Comment 167	There were also numerous comments made about the general conduct of the hearing.
Response 167	The report of the public hearing prepared by Harold Merkow, the hearing officer, indicated that the hearing met all legal requirements.

EPA COMMENTS

Comment #	Comments/Responses
Comment 168	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.
Response 168 34.1.b.ii, iv, viii	The permit has been revised to include annual testing (refer to Response 7) and testing when switching between operating scenarios.
Comment 169	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.

EPA COMMENTS

Comment #	Comments/Responses
<p>Response 169</p> <p>34.A.1 34.F.2.a.i 34.F.3.a.ii,iii,iv,v 34.F.4.a.v 34.F.5.a.iv 34.G.2.a.i 34.G.3.a.ii,iii,iv,v 34.G.4.a.v 34.G.5.a.iv 34.H.2.a.i 34.H.3.a.ii.iii.iv.v 34.H.4.a.v 34.I.2.a.v 34.I.3.a.iv 34.J.a.v 34.K.3</p>	<p>The substantive terms and conditions for each control system have been included as permit conditions. The permit was revised as follows:</p> <ul style="list-style-type: none"> • Removed references to the O&M Plan which allowed to Permittee to operate equipment outside the limits specified in the permit (e.g. removed the phrase “or as specified in the most recently approved O&M Plan”) • Removed “as defined in the most recently approved O&M Plan” • Removed references to the O&M Plan with specific limitations (e.g. removed the phrase “the most recent O&M Plan requires the thermal oxidizer...”) • Added “Changes to the operating parameter ranges specified in this permit shall require a significant permit revision.” • Removed reference to minor permit revision procedures in Permit Condition 34.K.3.
	<p>Comments 170 through 175 apply to the following:</p> <p>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).</p>
<p>Comment 170</p>	<p>The permit should specifically require a 99% control efficiency if the calculations are to be based on a 99% control efficiency.</p>

EPA COMMENTS

Comment #	Comments/Responses
Response 170 34.B.1, Note 6 34.G.2.a.vi 34.F.2.a.v 34.H.2.a.vi	The permit has been revised to require a 99% oxidizer control efficiency, or, if the inlet concentration is below 500 ppmv, the Permittee is allowed to demonstrate compliance with an outlet concentration of 5 ppmv or less. Also, the calculation notes in Condition 34.B.1 were revised to require the use of performance test data to determine annual emission rates.
Comment 171	<p>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 degrees F.” Thus, it appears that testing could be conducted at somewhere above 1400 degrees F, but, per the oxidizer operating conditions, could operate somewhere below that testing temperature so long as it is above 1400 degrees 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.</p>
Response 171 34.F.2.a.ii 34.G.2.a.ii 34.H.2.a.ii	The permit has been revised to require a set point temperature of 1500 degrees F with a minimum temperature of 1450 degrees F in order to address comment 172.

EPA COMMENTS

Comment #	Comments/Responses
Comment 172	<p>It is unclear how the temperature range of 1400 degrees F-1800 degrees F was decided upon. It is our understanding that dioxin formation levels off at around 1500 degrees 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 degrees 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 degrees F).</p>

EPA COMMENTS

Comment #	Comments/Responses
Response 172 34.E.5.a	<p>According to EPA's website (http://www.epa.gov/eogapti1/module6/dioxins/formation/formation.htm), "dioxin-furan concentrations appear to increase over the temperature range from 400 to 1,000°F. However, at temperatures well above 1,000°F, dioxin-furan compounds are readily oxidized." Based on the information of EPA's website, the minimum operating temperature for the oxidizer (1,450°F) is above the temperature range for increased dioxin-furan concentrations (400 to 1,000°F). In order to ensure continuous compliance with the emission limits for all treated pollutants, including dioxins/furans, the permit was revised to require the Permittee to operate the thermal oxidizer at a setpoint of 1500 °F and at all times above 1,450 degrees F. Refer to response 171.</p> <p>The majority (over 99.9%) of VOCs in the soil vapor are jet fuel-based compounds and not halogenated VOCs. Therefore, the thermal oxidizer for this proposed permit was designed to specifically control VOC emissions from petroleum hydrocarbons, not halogenated VOC streams, although halogenated VOC streams will be controlled by the oxidizer. The caustic scrubber and the potassium permanganate vessels were specifically designed to control halogenated VOC streams or their byproducts of combustion.</p> <p>The 99% control efficiency for the oxidizer applies to the total VOCs, not the individual speciated VOCs (including halogenated compounds). However, the proposed permit contains specific emission limits for selected HAPs, including vinyl chloride, which is the only halogenated VOC that approaches its Arizona Ambient Air Quality Guideline (AAAQG) at the fence line (based on modeling). The proposed vinyl chloride emission limits were based on a 99% destruction efficiency in the oxidizer. Therefore, the permit was revised and the upper temperature limit for the oxidizer was removed, to allow the Permittee greater operational flexibility to achieve the specific emission limits.</p> <p>For discussion on dioxin formation, refer to Responses 80 and 171.</p>

EPA COMMENTS

Comment #	Comments/Responses
<p>Comment 173</p>	<p>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.</p>
<p>Response 173 34.F.2.a.vi 34.F.2.b.iv 34.G.2.a.vii 34.G.2.b.vi 34.H.2.a.vii 34.H.2.b.vi</p>	<p>Once the proposed permit is issued, the oxidizer will be expected to achieve compliance with the applicable permit limitations. The proposed permit requires the oxidizer to have a 99% control efficiency at all times when the inlet VOC concentration is above 500 ppmv, including the times when the oxidizer is operating at the maximum permitted inlet flow rates of 3,300 scfm (AOS-1, one oxidizer, Condition 34.F.1.e) and 5,300 scfm (AOS-2, two oxidizers, condition 34.G.1.f). Therefore, because lower influent flow rates will result in increased residence time and, therefore, increased destruction efficiency, the oxidizer will have adequate residence time to achieve the required control efficiency at the maximum flow rate. The permit was revised to require a minimum residence time of 0.75 seconds at the maximum permitted flow rate and to require the Permittee to maintain a record from the manufacturer showing the oxidizer meets the residence time requirement. The 0.75-second residence time was based on EPA's Air Pollution Control Technology Fact Sheet (EPA document no. EPA-452/F-03-022).</p>
<p>Comment 174</p>	<p>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%.</p>
<p>Response 174 34.E.1.a.ii</p>	<p>The permit requires the performance tests to be "conducted under representative operating conditions" (34.E.4). The permit was revised to require annual performance testing. Refer to Response 173 for additional discussion.</p>

EPA COMMENTS

Comment #	Comments/Responses
Comment 175	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.
Response 175 34.F.2.b.i, ii 34.G.2.b.i, ii 34.H.2.b.i, ii	The permit has been revised as requested.
Comment 176	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.
Response 176 34.D.1	The Permittee must submit reports of all monitoring, recordkeeping, and testing activities that are required in Condition 34 and elsewhere in the permit. This was clarified in the permit.
Comment 177	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.

EPA COMMENTS

Comment #	Comments/Responses
Response 177 34.F.3.a.ii 34.G.3.a.ii 34.H.3.a.ii	The permit was revised to require the caustic scrubbers to be operated at a minimum pH of 7 or within 0.5 pH units of the pH used during the most recent HCl and HF performance test, whichever is greater. The permit was also revised to require the water recirculation rate to be within 10% of the water recirculation rate used during the most recent approved performance test and at all times between 25 and 250 gallons per minute (gpm)
Comment 178	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.
Response 178 34.F.3.b.i 34.G.3.b.i 34.H.3.b.i	The permit was revised as requested.
Comment 179	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.

EPA COMMENTS

Comment #	Comments/Responses
<p>Response 179</p> <p>34.F.5.a.iii 34.G.5.a.iii 34.I.3.a.iii</p> <p>34.F.4.b.vii 34.F.5.b.iii 34.G.4.b.vii 34.G.5.b.iii 34.H.4.b.vii 34.I.2.b.vii 34.I.3.b.iii 34.J.2.b.vii</p>	<p>Like the caustic scrubbers, the VGAC and PPA vessels are designed to operate with multiple parameters and ranges and still achieve the designed control efficiency.</p> <p>Refer to Response 3 for additional discussion on revisions to the VGAC vessel requirements in the permit</p> <p>The permit was revised to require the first PPA vessel to be changed out when the outlet vinyl chloride concentration of the first PPA vessel reaches a predetermined concentration or the outlet vinyl chloride mass flow rate of the first PPA vessel reaches the vinyl chloride lb/hr permit limit, whichever is earlier. The vinyl chloride lb/hr permit limit is still protected from being exceeded by the subsequent PPA vessel(s). The permit was also revised to include the use of the vinyl chloride testing to determine the vessel change-out and a requirement to record the expected and actual VGAC and PPA change-out.</p>
<p>Comment 180</p>	<p>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 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.</p>
<p>Response 180</p> <p>TSD 5.0</p>	<p>The TSD was revised as requested.</p>

EPA COMMENTS

Comment #	Comments/Responses
Comment 181	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.
Response 181 TSD 5.1.1	The TSD was revised as requested.

EPA COMMENTS

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Comment 182	<p data-bbox="440 296 1550 630">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 <i>In the Matter of New York Organic Fertilizer Company</i>, Petition Number II-2002-12 at 47-49 (May 24, 2004).</p> <p data-bbox="440 695 1550 1029">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 <i>In the Matter of Huntley Generating Station</i>, Petition Number II-2002-01, at 4-5 (July 31, 2003); see also <i>In the Matter of Dunkirk Power, LLC</i>, Petition Number II-2002-02, at 4-5 (July 31, 2003).</p> <p data-bbox="440 1094 1550 1480">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 NOVs (See <i>In the Matter of Tesoro Refining and Marketing Co.</i>, Petition Number IX-2004-06, at 14-16, and <i>In the Matter of Valero Refining Company</i>, 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:</p> <p data-bbox="586 1535 1550 2005"><i>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.</i></p> <p data-bbox="440 2032 1550 2100">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</p>

EPA COMMENTS

Comment #	Comments/Responses
Response 182	There is a pending enforcement action against this Permittee that may result in a compliance schedule for which the permit will be reopened. The TSD was revised to provide the explanation requested.

Additional Changes to Draft Permit

Permit Section	Change
Throughout	Grammatical corrections (i.e. "flowrate" to "flow rate")
34.C.5, 6	Added requirement to monitor the influent concentrations of TPH, benzene and vinyl chloride for the purposes of determining when a change of operating scenarios is permissible and when the operating scenario must be changed.
34.D.3.d	Added "at least annually" to requirement for monitoring extraction wells
Throughout	Added "and furans" after "dioxins"
34.E.1.b.i 34.E.1.b.ii	Added rule reference
34.E.1.b.vii	Added "Testing shall demonstrate compliance with all applicable HCl and HF emission limits of the Permit Conditions."
34.F.2.b.iv 34.G.2.b.iv 34.H.2.b.iv	Changes requirement for oxidizer temperature recording from "daily...every day the thermal oxidizer operates" to "continuous...whenever the thermal oxidizer operates"
34.F.2.b.iv.a 34.G.2.b.iv.a 34.H.2.b.iv.a	Added requirement to record the time when the temperature readings were recorded
34.F.3.a.v 34.G.3.a.v 34.H.3.a.v	Corrected the caustic scrubber flow rate from 3,350 scfm to 3,300 scfm to match the oxidizer (SVT-1) flow rate
34.F.3.b.iii 34.G.3.b.iii 34.H.3.b.iii	Clarified requirement to record "caustic scrubber pressure drop readings" instead of "differential pressure readings"
34.F.3.b.iv 34.G.3.b.iv 34.H.3.b.iv	Added requirement to record caustic scrubber water level

34.F.4.b.vi 34.G.4.b.vi 34.H.4.b.vi 34.I.2.b.vi 34.J.2.b.vi	Added requirement to log all VOC readings for carbon vessels
34.H.1.h	Added requirement to “maintain the two thermal oxidizer flow rates at a combined inlet flow rate of not more than 5,300 scfm”
Throughout	Changed “will” to “shall”
34.C	Added requirement to continuously monitor exhaust air flowrate to the BSVE system.
34.E	Added conditions to prevent annual performance tests from occurring less than 9 months apart.
34.F.4, 34.G.4, 34.H.4, 34.I.2, and 34.J.2	Added requirement to maintain calibration records for the photoionization detector or flame ionization detector as applicable.
34.A.1	Revised language to clarify that all control equipment must be operated according to the permit whenever soil vapor is extracted.



Janet Napolitano
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Stephen A. Owens
Director

September 10, 2007

Ms. Suzanne Kennedy
Interim Permitting Division Manager
Maricopa County Air Quality Department
1001 North Central Avenue
Phoenix, Arizona 85004

Re: Arizona Department of Environmental Quality's Response to Public Comments on
Honeywell's Proposed Modifications to the Title V Air Permit, Biologically Enhanced Soil
Vapor Extraction System (BSVE)

Dear Ms. Kennedy:

This letter is in response to Maricopa County's request, dated August 29, 2007, for Arizona Department of Environmental Quality's (ADEQ) Tank Programs and Waste Programs Divisions input on 17 public comments concerning ADEQ programs. ADEQ responses follow each comment below:

Comment 13: This site is on the 52 St. Motorola Superfund area. Honeywell has contributed to VOC Groundwater contamination. This soil vapor extraction will have an impact to Groundwater Table in this area where VOC's are currently located.

Response 13: The proposed BSVE system will not impact the groundwater table. The system is designed to remediate the soil column above the groundwater and the jet fuel floating above the groundwater.

Comment 26: How many gallons of polluted water will be processed? Does "free product" mean JP4 fuel? How have you been able to separate it from other contaminants and water?

Response 26: The proposed BSVE system will not process any polluted water because groundwater clean up is not the intent of this system. The free product does include JP4, Jet A and other fuel and also contains less than one percent of chlorinated solvents. The free product is separate from the groundwater because it is less dense and floats on top of the groundwater. Although, some petroleum constituents from the free product have dissolved into the groundwater (dissolved phase contaminants). The dissolved phase contaminants in the groundwater will not be cleaned up with the proposed BSVE system, but will be addressed at a later date. The proposed BSVE treatment system will remediate both the petroleum products and the chlorinated solvents, negating the need to separate the contaminants.

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Ms. Suzanne Kennedy
September 10, 2007
2 of 6

Comment 41: This permit does not include nearly the same level of oversight of this clean-up in terms of monitoring, sampling, reporting, inspection, design review, etc., as Superfund oversight would.

Response 41: In addition of the MCAQD oversight to enforce the permit conditions, two different programs within ADEQ (CERCLA and Tank Programs) will conduct oversight activities. ADEQ is committed to conducting oversight necessary to ensure strict adherence to the operational and sampling provisions identified in the permit and to implement the Corrective Action Plan. To that end, the Tank Programs Division, who has been the internal lead on this project for some time, may utilize technical resources from throughout the Department at various times to address review, comment or response to issues that may arise as the permit is implemented.

Comment 42: This clean up effort, part of an ADEQ Corrective Action Plan, is under the jurisdiction of the Tank Programs Division (TPD) and not Superfund. The Tank Programs Division has no authority to control air emissions (resulting in MCAQD Title V permitting). A Title V permit sets allowable air pollutant levels as if these contaminants were first-time new sources, which they are not. ADEQ's insistence that the jurisdiction for this clean-up should be solely with the TPD and not jointly with Superfund, has led to a situation where air emissions of Superfund CVOCs are being permitted by MCAQD, even though MCAQD has no authority over Superfund air emissions. This situation seems to make much more sense to government officials than it does to community members.

Response 42: Please see response number 41. ADEQ's TPD and CERCLA Programs have joint jurisdiction over clean up of the UST petroleum releases that are commingled with chlorinated solvents. The TPD is overseeing the clean up in accordance with the approved CAP. The proposed BSVE system is an appropriate cleanup technology for both the CERCLA chlorinated solvents and the petroleum contamination. The emissions from the system would be the same no matter what program oversees the clean up. The proposed Title V permit sets emission limits that are protective of the community.

Comment 76: No mention is made in the permit application or the draft permit of this site being part of an active federal Superfund Site or that the proposed BSVE system is for clean up of CVOCs commingled with jet fuel that are part of an ongoing Superfund clean-up. This is an important fact about this site and must be required to be disclosed in the Statement of Basis or Project Description.

Response 76: While no mention is made specifically regarding the CERCLA clean up, the permit project description does state that "Chlorinated solvents are also present in the free product and groundwater". The fact that chlorinated solvents are commingled with free product is the important detail pertinent to the system design and permitting. Chlorinated solvents were specifically addressed in the permit application and specific emission limits and monitoring requirements were established for vinyl chloride.

Comment 78: The circumstances of this permit revision are unique. MCAQD was not able to find any equivalent Title V permit and instead had to rely on permits issued for new sources. Sufficient information must be provided for the community to have a reasonable ability to understand that this

Ms. Suzanne Kennedy
September 10, 2007
3 of 6

permit for air emissions under a Title V permit was not for new sources and would and could not have the same level of oversight provided by Superfund under CERCLA.

Response 78: Please see response to comment number 41 concerning oversight of this clean up.

Comment 94: Wells and the BSVE system inlets must be monitored for more compounds than benzene, vinyl chloride, and TPH. All compounds listed in the Potential to Emit tables must be monitored and reported. The site is not well characterized, must have more frequent monitoring, and must include split sampling performed by MCAQD during these monitoring events. ADEQ's October 7, 2005, Corrective Action Plan Final Approval letter states under condition 5 that "the vapor-treatment monitoring plan shall include periodic monitoring for dioxins, along with all other chemicals of concern listed in Table 17 of the CAP." All chemicals and contaminants of concern identified under Superfund must be monitored and reported.

Response 94: The full extent of soil, free product, and groundwater contamination resulting from historical UST release is characterized. In addition, the CAP Final Approval letter required additional site-specific pilot tests. The pilot test on the Honeywell property north of the airport was completed in spring 2006 and the data from the test used to design the system. Soil vapor concentrations at the site have been monitored for years in vapor monitoring wells located across the site and at multiple depths throughout the soil column. ADEQ will require Honeywell to monitor the TPD and CERCLA chemicals of concern at the monitoring wells and system inlet.

Comment 105: A concern remains that oversight under a Title V Air Permit will not provide the same level of oversight that would be provided under Superfund despite assurance from ADEQ's Director of Tank Programs Division, Phil McNeely, that it does. In a February, 2007, conversation in response to this assertion Director McNeely was asked to provide, in writing, what steps would be taken, how this would be accomplished, the frequently and time table for actions, and any other evidence to support the equivalency of oversight provided by the two programs. Director McNeely responded that he would not and that it would be "inappropriate" to do so.

Response 105: First, please see response to comment number 41 concerning oversight of this clean up.

Second, ADEQ Tank Programs Division Director, Philip McNeely, stated during a February 2007 telephone conversation with the commenter that it was "inappropriate" to comment in writing on the proposed permit prior to the draft permit being published for review and prior to the opening of public comment. TPD Director McNeely further stated that ADEQ would conduct a thorough review of the permit and comment, if appropriate, on the permit conditions and level of government oversight.

ADEQ provided substantive comments on the permit conditions in a letter dated June 1, 2007, and ADEQ has coordinated with the U.S. EPA to establish the specific roles of ADEQ and EPA in their mutual, ongoing regulatory oversight of the clean up at the site.

Ms. Suzanne Kennedy
September 10, 2007
4 of 6

Comment 106: A concern over the lack of adequate site characterization: one of the main concerns is that the Light Non-Aqueous Phase Liquids (LNAPL) site has not been fully characterized and that the concentrations of the Hazardous Air Pollutants (HAPs) used for the modeling may not be the worst case scenario. A lower water table has been observed at the site. If the water table rises (and drops) again, more contaminants from the free phase would be left in the soil increasing the soil vapor concentration.

Response 106: Please see response number 94 concerning the site characterization of the site. The lowering or rising of the water table primarily affects the thickness of the free product floating on the groundwater, and not significantly impact the soil vapor concentrations. Vapor influent concentrations will be monitored to ensure that the system maximum influent concentrations are not exceeded and that the system is operated as designed.

Comment 108: A principle concern is that federal Superfund contaminants at an active Superfund Site should not have air emissions covered under a Title V Permit for new source emissions. Maricopa County has no authority over Superfund air emissions. Superfund CVOC's should be under Superfund authority. This is not a new source and CVOC contaminants which are part of a Superfund Site clean-up should not be allowed to be transferred from one medium, the soil, and released into another medium, the air.

Response 108: The approved clean up technology minimizes the generation of vapors by using three different technologies. First, free product floating on the water table at sufficient thicknesses will be pumped or bailed directly from the well. This recovery effort has already been implemented. Second, air is injected into the soil column to supply oxygen to the indigenous bacteria to assist in the breakdown of the petroleum products in place. Third, soil vapors are extracted from the subsurface and treated at the surface.

Two out of the three technologies do not generate vapors. The free product recovery from wells and the breakdown of petroleum products by bacteria do not generate vapors. However, in order to adequately clean up the soil column and remove the free product floating on the groundwater, vapors will have to be extracted and treated at the surface. The permit requires that the vapors extracted to the surface are treated to concentrations that are protective to the public.

If ADEQ's CERCLA program was the lead in oversight of the BSVE system, the CERCLA program would require Honeywell to meet MCAQD rules since CERCLA does not have any promulgated emission rules or regulations.

Comment 109: What potential unintended consequences might arise from allowing Superfund CVOCs to be permitted under a Title V Permit? How might this be used in court? Would this set any precedent for other responsible parties at Superfund sites to successfully argue to be allowed to emit higher levels of VOCs or to remove air emission controls totally. In 2003 Motorola proposed removing the carbon canisters at Operable Unit 1 of the Motorola 52nd Street Superfund Site and then voluntarily elected to replace the cracked canisters in the face of stiff public opposition. Motorola is currently negotiating the possible removal of air emission controls at the North Indian Bend Wash Superfund Site. What assurances do community members have that there will be no

Ms. Suzanne Kennedy
September 10, 2007
5 of 6

legal ramifications that will weaken air emission controls in the future in Maricopa County, in Arizona, in Region 9? Honeywell has been described as preferring "to litigate than to remediate." Is there a way that Honeywell will be able to take the County or ADEQ to court over the requirements for air emission controls? Might Honeywell apply for another Title V Air Permit modification for this clean-up in the future? If Honeywell submits any additional revision to the Title V permit involving the BSVE system or the clean up of the jet fuel and CVOC contamination, the permit application revision, whether significant or minor, must go to public comment.

Response 109: ADEQ does not anticipate any unintended consequences arising from allowing this system to be permitted under a Title V Permit. Under the CERCLA process, all state, city and county applicable or relevant, and appropriate requirements are considered when choosing a final remedy. The fact that CERCLA clean ups do not require a permit does not mean that CERCLA clean ups would not require and incorporate the state, city and county substantive permitting or regulatory requirements.

Comment 112: The soil vapor extraction process is being used to remediate the soil in the vadose zone in addition to removing the hydrocarbon free phase. However, the dissolved contaminant in the groundwater has not been addressed yet. A later technology could be proposed to remediate the groundwater that could increase the vapor concentration in the soil.

Response 112: If the future groundwater remedy selected generates vapor, vapor recovery will be included as part of the groundwater remedy, if appropriate.

Comment 113: Inconsistency of this remedy with the Second Five Year Review of the Operable Unit OU2 for the Motorola 52nd Street Superfund Site developed by LFR, Inc., and ADEQ that cites as a deficiency and concern (and as a subsequent corrective action and recommendation) that the final Superfund remedy must consider and integrate the Honeywell light non-aqueous phase liquid (LNAPL) remedy. Incorporation into the CERCLA process might allow the use of alternative remediation technologies other than the one being proposed.

Response 113: There is no inconsistency with the Second Five Year Review. If the LNAPL remedy is ongoing during the final remedy selection, ADEQ's CERCLA program may consider integration of the BSVE system.

Comment 127: An earlier pilot test run by Honeywell, I believe in 2003, seemed to indicate almost immediate breakthrough. Although this was caught by ADEQ, Honeywell and its consultants did not recognize the data as supporting breakthrough. Were data, results, and conclusions from this earlier pilot test (before the CAP approval) considered? If not, would MCAQD or U.S. EPA take these data into consideration?

Response 127: Honeywell operated a soil vapor extraction system in 1998 without ADEQ's knowledge, which resulted in the removal of large quantities of petroleum products. Data from more recent pilot tests have been used to determine system design and carbon vessel sizes/ amounts. Pilot test data is not needed or considered in determining change out criteria.

Ms. Suzanne Kennedy
September 10, 2007
6 of 6

Comment 148: When I was involved with the Superfund TAG Grant (phonetic) Committee for this area, we did a tour of Honeywell about ten years ago. They had just been caught from the Arizona Department of Environmental Quality for some very severe violations of something on site, and they were -- the proposed fine was like \$750,000. I think they only got fined 75, but I know as, you know, a glimpse of your enforcement, you may find it useful to compare notes with the Arizona Department of Environmental Quality and see if you've got a repeat offender or the same pattern of violations.

Response 148: ADEQ is willing to share public information with the MCAQD and has been coordinating with MCAQD throughout the permitting process.

Comment 156: We do have a lot of concerns over the amount of compliance, the inspections, about the way this will be monitored, about the -- about there not being a lot of oversight during the ramp up of this, from what I can tell from reading the permit. You know, we were -- I was assured by ADEQ that the oversight over this remedy would not be different under the tank (phonetic) division's program versus the Superfund program. However, I believe under the Superfund program the oversight that would be on the ground and at that plant while the remedy is being ramped up and is coming online would be much different than what's outlined in this air permit.

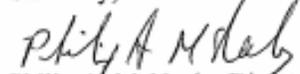
Response 156: Please see response to public comment number 41.

Comment 159: We do feel like the Title 5 permit is not the appropriate permit for these Superfund CVOCs (phonetic) that are commingled with the jet fuel, that the oversight for those really does belong with Superfund, either EPA or with the ADEQ Superfund. And we have concerns over a potential precedence that may be set by this, and how that may impact this site or other sites in the future as, you know, if this goes forward and is granted for this type of clean up.

Response 159: Please see response to public comment number 109.

ADEQ appreciates the opportunity to respond to these public comments on this permit. Please contact me with questions at (602) 771-7645, pam@azdeq.gov or Mr. Harry Hendler, Federal Projects Unit, at (602) 771-4609, hh3@azdeq.gov.

Sincerely,


Philip A. McNeely, Director
Tank Programs Division

cc: Leah Butler, USEPA
Samantha Roberts, ADEQ
Harry R. Hendler, ADEQ