

Second Notice of Deficiency, Post-Closure Permit Renewal Application, Former
Kearney KPF Facility, Stockton, California, US EPA ID. NO. CAD981429715
Revised Post-Closure Permit Renewal Application
Kearney-KPF, Stockton, San Joaquin County
Lora Kiger Jameson
April 8, 2015

General Comment 1. Termination of groundwater monitoring. The document repeatedly states that groundwater monitoring will continue until the water quality protection standard (WOPS) is met for a period of three consecutive years, after which groundwater monitoring will be terminated at the site in accordance with 66264.90(c). This approach, as written in the Part B Application, conflicts with the RCRA groundwater monitoring regulations. See Title 22, Article 6 for more information.

Pursuant to 66264.90(c)(2), waste residues and/or contaminated environmental media remain at the site at closure. Accordingly, Kearney is required to conduct post-closure monitoring for the duration of the post-closure period when waste or contaminated media exists in the subsurface. Once corrective action is complete, the monitoring program should revert to a detection monitoring program, per 66264.100(g). Kearney should revise the Part B Application to remove all references to terminating groundwater monitoring after meeting the water quality protection standard for three years. This includes text in sections A-3 (multiple locations), C, E-1, G-1 (g), M-5, and Table E-1a.

Kearney has revised the Part B Application to remove all references to terminating groundwater monitoring after meeting the water quality protection standard for 3 years, including text in sections A-3 (multiple locations), C, E-1, G-1 (g), M-5, and Table E-1a, and will submit an application at a future date to modify the permit to include reduced groundwater monitoring.

Additionally, Kearney would like to take this opportunity to clarify the compliance period. Title 22 of the California Code of Regulations (CCR), Section 66264.96 states that “The compliance period is the number of years equal to the active life of the regulated unit (including any waste management activity prior to permitting, and the closure period) and constitutes the minimum period of time during which the owner or operator shall conduct a water quality monitoring program subsequent to a release from the regulated unit.” The former Kearney-KPF facility was operational from 1951 to 1991, when it was closed. Accordingly, the compliance period shall end when corrective action is complete or in 2031, 40 years after the date of closure.

General Comment 2. Phases of groundwater monitoring. Groundwater monitoring at the site should be split into three phases:

- Monitoring associated with active groundwater extraction (i.e., active corrective action),

Reponses to Comments

- Rebound monitoring (i.e., a monitored phase of corrective action to verify that additional active corrective action measures are not necessary), and
- Post-rebound monitoring (i.e., corrective action is complete and the site can return to detection monitoring):

Currently, the Part B Application includes monitoring for only the active groundwater extraction phase. The document does not include information for the rebound phase nor does it include the procedures for detection monitoring once corrective action is considered complete. This information should be added.

In addition, once in the rebound phase, there are no triggers for when groundwater extraction and treatment would need to be resumed. These triggers should be added to the program.

In the letter dated November 16, 2015, the Department of Toxic Substances Control (DTSC) stated that “it is inappropriate to assume that the permit modification application will be approved. Instead, the Application should assume that Kearney will continue to conduct post closure activities and the corrective action groundwater monitoring program.” Accordingly, the present application includes discussion of only corrective action and the termination of corrective action measures upon demonstrating achieving CLs in accordance with 66262.100(f)). The present application assumes that the subsequent transition to detection monitoring will be described in a future permit modification application, which will be filed after demonstration that concentrations have been compliant with CLs in all wells for a period of 1 year following termination of corrective action measures, per the provisions laid out in 22 CCR 66262.100(g). Monitoring for rebound is addressed below in the response to General Comment 3. Regarding triggers for when groundwater extraction and treatment would need to be resumed, in the event that concentrations rebound to non-compliant concentrations after termination of corrective action measures, Kearney proposes that a determination regarding whether to resume corrective action measures should be made in consultation with DTSC depending on the specific circumstances at the time.

General Comment 3. Statistics to terminate groundwater extraction. The Part B Application proposes to terminate groundwater extraction and treatment when concentrations of constituents of concern (COCs) are below their respective concentration limits (CLs) based on the procedures in the SEP. The SEP outlines three statistical approaches:

- Case 1: parametric testing with no trends in the data and less than 15% non-detects with a minimum of four measurements,
- Case 2: parametric testing with a trend in data and less than 15% non-detects with a minimum of eight measurements, and

Reponses to Comments

- Case 3: non-parametric testing with confidence intervals for greater than 15% nondetects with a minimum of five measurements.

There are multiple issues with the approach presented in the Part B Application and SEP:

- The SEP describes the procedures only for terminating the active groundwater extraction phase and should be revised to include data evaluation procedures for the second and third phases (rebound and post-rebound, respectively).
- Concentration data collected while the groundwater extraction system is pumping are not representative of ambient groundwater concentrations once the groundwater extraction system is shutdown. Therefore, statistical evaluation(s) are needed for the rebound phase. Given that it took several years for rebound to be observed during the 2012-2014 study, the rebound phase should be of sufficient duration and with a sufficient number of sampling events to account for variability in groundwater flow directions and changes in groundwater elevations.
- The text does not indicate if each groundwater extraction well will be evaluated independently of other extraction wells. In addition, the text does not indicate if extraction wells can be shutdown independently. The Part B Application should be revised to allow for partial shutdown of the extraction well field, which will allow for targeted extraction in the recalcitrant areas of the site.
- The SEP does not indicate when the SEP procedures will be implemented. The SEP should identify the frequency that the statistical procedures will be followed. One option is to provide a decision tree for when the data will be evaluated statistically. Otherwise, there will be the expectation that the SEP will be implemented for each monitoring event.
- The text does not indicate if the SEP is applicable only to extraction wells or includes monitoring wells. GSU recommends that concentrations and trends in both extraction and monitoring wells be evaluated with the SEP.
- The SEP would benefit from example calculations for each of the three cases to demonstrate applicability of the statistical procedures to a site-specific data set.
- The SEP should include technical justification for the number of measurements for each case. For example, Case 1 requires a minimum of four measurements and Case 3 requires a minimum of five measurements. The basis for the difference should be provided.
- Statistical evaluations should exclude groundwater data that may be temporarily biased low due to soil vapor extraction activities conducted from December 2014 to March 2015.

Reponses to Comments

Bullets 1, 2. The Statistical Evaluation Plan is not limited to procedures for terminating the active groundwater extraction phase. The same procedures are equally appropriate for monitoring conducted after extraction ceases and, as described in the response to Geological Services Unit (GSU) General Comment 2, the corrective action monitoring program continues in the absence of extraction. The procedures are appropriate for detecting rebound. Alternative procedures, also designed for detecting rebound, will become appropriate upon DTSC approval of a detection monitoring program, at which time Kearny will submit a revised Statistical Evaluation Plan with its application for permit modification, which is required by regulation before detection monitoring can commence. Because these procedures applied during the monitoring phases defined by regulation (i.e., corrective action monitoring, both before and after termination of extraction) and, subsequently, detection monitoring, are appropriate for detecting rebound, there is no need for specially designated “rebound” and “post-rebound” monitoring phases.

Bullet 3. Please refer to the third sentence of the third paragraph in the Statistical Evaluation Plan: “The corrective action objectives are based on specific WQPS concentration limits, and this procedure identifies with an appropriate level of statistical confidence when concentrations in groundwater at a monitoring well have declined to these limits or below.” All of the test procedures in the Statistical Evaluation Plan are applied to each well, either extraction or monitoring, independently.

Kearney does not intend for the Part B Application to restrict flexibility to reallocate the number and flow rates of the extraction wells to improve efficiency and efficacy of the corrective action, and it anticipates that such reallocation is likely. However, we have added text in Section A-3 to clarify this.

Bullet 4. We have added the following statement to Section G-1(i) of the Part B Application and in the first section of the Statistical Evaluation Plan: “The procedures in the Statistical Evaluation Plan are valid at any point in the corrective action monitoring program, will be applied when needed to both monitoring wells and extraction wells, but are unnecessary at any particular well until concentrations have fallen to levels that are frequently at or below the WQPS concentration limits. Accordingly, Kearney will only report statistical evaluation results once it determines they demonstrate compliance with WQPS concentration limits. Once compliance has been so demonstrated for a particular well, Kearney will report statistical evaluation results for that well for any subsequent sample analysis that exceeds the concentration limit to detect non-compliant rebound, should it occur.”

Bullet 5. The Statistical Evaluation Plan is designed and intended for the monitoring wells, but it can also be applied to the extraction wells, as noted in the response to Bullet 4.

Bullet 6. The Statistical Evaluation Plan refers repeatedly to guidance documentation (*Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance -USEPA 530-*

Reponses to Comments

R-09-007, March 2009) and to specific examples given in the guidance document for those unfamiliar with these standard statistical procedures.

Bullet 7. The Statistical Evaluation Plan is written as succinctly as possible to provide a straightforward manual for a statistician addressing the data from this site. It is essentially extracted from the referenced U.S. Environmental Protection Agency (EPA) guidance document (*Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance - USEPA 530-R-09-007, March 2009*), abbreviated to avoid information unnecessary to performing the procedures. The statistical theory inherent to the elements of these procedures, including appropriate numbers of measurements, would fill volumes, but the guidance document is an excellent summary. We contend that level of detail would not benefit this document and refer you to the readily available guidance at <http://www.epa.gov/osw/hazard/correctiveaction/resources/guidance/sitechar/gwstats/unified-guid.pdf>.

Bullet 8. The procedures in the Statistical Evaluation Plan evaluate trends in data based on time series of those data. The nature of that analysis will reveal if there is a temporarily low bias to data at any of the wells. It would be inappropriate to assume there will be bias in the absence of data that demonstrate a bias and, therefore, it is inappropriate to exclude the data.

General Comment 4. Concentration limits. Kearney revised the CLs to be equal to the Maximum Contaminant Level (MCL). However, Kearney did not address the NOD comment regarding CLs, which was to revise the CLs to human health risk-based concentrations protective for a risk of 1×10^{-6} and a hazard of 1.0. Kearney should revise the Part B Application to provide CLs that are the lower of the MCLs or the risk-based values (risk of 1×10^{-6} and a hazard of 1.0). As stated in 66264.94(d), CLs greater than background shall consider proximity and withdrawal rates of groundwater users and potential health risks caused by human exposure to waste constituents. In addition, the current California notification level for 1,4-dioxane is 1 $\mu\text{g/L}$, not 3 $\mu\text{g/L}$ as indicated in the Part B Application.

A health risk analysis was conducted to demonstrate that proposed CLs for each of the COCs are protective of all biological receptors, based on the drinking water and vapor intrusion into indoor air from groundwater exposure pathways. The results of the risk analysis and proposed CLs are discussed in Section G-1(f) of the Part B Application.

General Comment 5. Sources of contamination. The conceptual site model for the Kearney site shows the former ponds as being the only source of VOCs in groundwater. Other sources exist, as evidenced by the distribution of soil gas concentrations in the 1989 and 2013 soil gas surveys. The 1989 and 2013 shallow soil gas concentrations are higher adjacent to the former manufacturing building, near the location of the drain that discharged waste. The 2013 deeper soil gas data also shows the highest soil gas impacts adjacent to the former manufacturing building. In addition, the subsurface below the

Reponses to Comments

former manufacturing building and former plating activities have not been characterized. The conceptual site model should be updated and text in Sections A-3, B-1, G-3, and H of the Part B Application should be revised accordingly.

Releases below and adjacent to the former manufacturing building should be monitored, investigated, and remediated under the DTSC permit, consent agreement, or enforcement order with Kearney.

Kearney finds no justification for changing the conceptual model. While recent acquisition of deeper soil gas data has extended the depth of the delineation, it does not constitute some new source discovery. A plume of groundwater contaminated by volatile organic compounds (VOCs), which 25 years ago contained concentrations orders of magnitude higher than today, and which extended beneath the areas where VOCs have been seen in soil gas since 1989, is a very likely primary source of the relatively high soil gas concentrations detected at depth. Additionally, a proposed new shallow well in the vicinity of KI-18 will provide further data with which to assess the impact of vadose zone contamination on shallow groundwater concentrations.

General Comment 6. Risk Assessment. Multiple locations of the Part B Application discuss the results of the soil vapor survey. DTSC has not provided comments on the soil gas survey and cannot concur at this time with the conclusions regarding the absence of risk from soil and soil gas provided in Sections A-3, D-1, G-3, H, and M-4 of the Part B Application.

No response necessary.

General Comment 7. Compliance with WDR. Changes to the monitoring program as indicated in the Part B Application are not in accordance with the requirements set forth in RWQCB MRP 5-01-269 and RWQCB MRP R5-2003-0838. Therefore, Kearney should obtain prior RWQCB approval of such changes.

Per a letter from the DTSC on January 31, 2003, the DTSC is the lead agency for the KPF-Kearney site and “will be the Agency responding directly to the facility regarding cleanup of the site, and DTSC will incorporate the CVRWQCB comments into the correspondence to the facility.” The letter also stated that the waste discharge requirement (WDR) and both monitoring and reporting programs (MRPs) were to be incorporated into the Post-Closure Permit.

Specific Comment 8. Constituents of Concern. The Part B Application or SAP does not clearly identify the constituents of concern (COCs). Because the permit needs the reference a specific section in the Part B Application where COCs can be found, the Part B Application should be revised to clearly provide this information.

COCs have been clearly specified in Section G-1(f).

Reponses to Comments

Specific Comment 9. Section A-3, General Description. The first paragraph on page 3 states that the leaching to groundwater pathway is addressed. However, the document does not include this evaluation, as stated in Section G-3. Section A-3 should be revised in accordance with GSU comments on Section G-3.

The text in Section A-3 has been revised.

Specific Comment 10. Section A-3, General Description. The third paragraph on page 3 states that the groundwater extraction and treatment system was restarted in December 2014. The system was restarted in January 2015, and the text should be updated.

The text in Section A-3 has been revised.

Specific Comment 11. Section B-1, Facility Location. The sixth paragraph of the section states that contamination does not extend past the property boundary. However, the easternmost Shallow zone well KS-1 contains TCE above the concentration limits. The eastern extent of contamination has not been delineated and the text should be revised accordingly.

Kearney does not believe a revision of the text is warranted. Though KS-1 temporarily contained trichloroethylene (TCE) at a level greater than the CL, subsequent monitoring revealed a rapid decline and concentrations have remained below the CL through the latest data collection on October 6, 2015. Supporting information regarding the concentration of TCE in KS-1 has been included in Section M-4.

Specific Comment 12. Section E-1, Cost Estimate. The sixth bullet states that Appendix IX sampling is required every 5 years during corrective action monitoring. Please note that Appendix IX includes multiple compounds, including but not limited to SVOCs other than 1,4-dioxane, pesticides, herbicides, metals, and dioxins/furans. These other compounds are not included in the Part B Application but should be added if Appendix IX compounds will be analyzed. In addition, sample bottle, preservation, and hold time information and sampling order for constituents are also missing and should be added.

Additionally, based on Table 4 of the SAP, Kearney intends to conduct analyses for a wider list of VOCs once every five years, not Appendix IX once every five years. Monitoring programs can consist of 1) constituents of concern (COCs), which are based on all possible wastes, daughter products, and byproducts that are analyzed less frequently, and 2) monitoring parameters, which are a subset of COCs that are the best indicators of a release or progress of corrective action. The SAP text should be revised to distinguish between routine monitoring parameters and COCs, which was implied in Table 4 of the SAP.

Kearney should note that Appendix IX sampling is required in three circumstances: 1) during detection monitoring verification sampling per 66264.97(k), 2) annually during

Reponses to Comments

evaluation monitoring per 66264.98(e)(6), and 3) annually upon completion of a corrective action program that returns to detection monitoring per 66264.97(n). In each case, the permittee may receive written permission from DTSC to change the frequency, wells, and chemicals required for Appendix IX analyses. If one of these cases apply to the Kearney site, the Part B Application should be revised to include justification for reduced Appendix IX sampling. When the site reverts to detection monitoring, the third case will be applicable to the Kearney site.

The text in Section E-1 has been corrected to state that Appendix IX VOCs will be analyzed for every 5 years.

Specific Comment 13. Section G-1(g), Monitoring Program Description. The last paragraph states that groundwater elevations will be measured quarterly during corrective action. However, Table G-1g indicates groundwater elevations will be measured semi-annually. The discrepancy should be corrected.

In addition, as recommended in general comment 2 above, Kearney should revise the Part B Application to include tables and text that address the two phases of corrective action and to better distinguish between the different activities that are necessary for each phase. In addition, if Kearney anticipates completion of corrective action during the 10-year duration of the permit, Kearney can include procedures for proceeding to detection monitoring. Otherwise, a permit modification will be needed to move from corrective action monitoring to detection monitoring.

The monitoring program description has been corrected to reflect semiannual water level elevation measurements. Per Comment 2 in the November 16, 2015, letter from the DTSC, the present application includes discussion of only corrective action, and it assumes that a transition to detection monitoring will be described in a future permit modification application, which will be filed after demonstration that concentrations are compliant with CLs in all wells for a period of 1 year after termination of corrective action measures, per the provisions laid out in 22 CCR 66262.100(g).

Specific Comment 14. Section G-1(g), Monitoring Program Description. The last paragraph states that wells in which no contaminants are detected for four consecutive sampling events will automatically be designated biannual monitoring wells. This reduction in frequency is not appropriate based on the observed prior rebound and should be removed from the document. For the active corrective action and rebound phases, a phased approach is appropriate and consider the longer time frames that were observed at the site. Section G-1(g), Table G-1g, and SAP Table 2 should be revised accordingly.

The text in Section G-1g, Table G-1g, and Table 2 in the WQSAP have been revised to include the following statement: "If a well does not contain constituents of concern above the detection

Reponses to Comments

limits for four consecutive monitoring events, Kearney will petition DTSC for a reduced sampling frequency.”

Specific Comment 15. Section G-3, Vadose Zone Monitoring Plan. The first paragraph states that the 1989 and 2013 soil gas investigation shows a similar distribution of soil gas but the later event showed substantially lower concentrations. This is only true for shallow soil gas contamination at 5 feet bgs because deeper soil gas samples were not collected in 1989. Therefore, conclusions cannot be made regarding decreases in concentrations of deeper soil gas concentrations over time.

The text in Section G-3 has been revised.

Specific Comment 16. Section G-3, Vadose Zone Monitoring Plan. The second paragraph states that the source of VOCs in the vadose zone was due to partitioning from infiltrating contaminated water. While partitioning of contaminants from infiltrating water into soil gas is one phase, there are three additional mechanisms by which VOCs would remain in the subsurface: 1) VOCs dissolved into soil moisture, 2) sorption of VOCs to soil particles, and 3) accumulations of non-aqueous phase liquids from historical releases. Even though releases from plating operations have since ended, VOCs could exist in any of the four phases. The text should be revised accordingly.

As stated above in general comment 5, the soil gas impacts below and adjacent to the former manufacturing building could be addressed under a mechanism other than a post-closure permit.

The text in Section G-3 has been revised.

Specific Comment 17. Section G-3, Vadose Zone Monitoring Plan. The second paragraph states that monitoring the vadose zone provides negligible practical value. If vadose zone monitoring is not conducted under the post-closure permit, soil gas monitoring should be conducted under an order or agreement with Kearney to evaluate the nature and extent of soil gas impacts at the site and to evaluate corrective measures.

The text also states that the vadose zone will not be a source of contamination to groundwater once groundwater concentrations reach the cleanup goals. GSU disagrees with this statement.

Based on soil gas data collected in 2013 and equilibrium calculations using Henry's Law (shown below), concentrations in soil gas are greater than the equilibrium concentration in groundwater. Concentrations of TCE in the vadose zone would yield an equilibrium groundwater concentration an order of magnitude greater than what is currently detected in groundwater, whereas concentrations of 1,1-DCE in the vadose zone would yield an

Reponses to Comments

equilibrium groundwater concentration that is two orders of magnitude greater than that which is currently detected in groundwater.

[Table omitted]

In addition, soil concentrations indicate concentrations of PCE and TCE in soil that exceed risk-based soil screening levels for protection of groundwater (January 2015 EPA Region IX RSLs, <http://www.epa.gov/region9/superfund/prg/>). Furthermore, soil samples for VOCs were not collected from boreholes with the highest soil gas concentrations; therefore, the actual impact to groundwater from soil may be underestimated.

[Table omitted]

The above are additional lines of evidence as to why contaminant mass in the vadose zone must be addressed.

As addressed in its global response to April 24, 2015, Human and Ecological Risk Office (HERO) comments (below), Kearney proposes that the issue of vadose monitoring be deferred to discussions subsequent to and separate from the Post-Closure Permit renewal. However, for completeness of the record, Kearney's response to GSU Specific Comment 17 on the same subject follows:

Monitoring the vadose zone at this site might be appropriate if there were a direct risk to receptors from contaminants in the vadose zone, but there is not. Risk assessment with respect to vapor intrusion from soil gas has demonstrated there is no unacceptable risk. Vadose zone monitoring for VOCs in soil gas, therefore, is not necessary for this purpose.

The nature and extent of soil gas in the vadose zone has already been evaluated, and the need for corrective measures with respect to soil gas is not necessarily apparent.

Regarding soil vapor as a potential source of groundwater contamination, GSU misstates the meaning of the text in the Part B permit application. The point intended in the application is that if the ongoing groundwater extraction achieves WQPS concentration limits, so groundwater extraction ceases, and subsequent groundwater monitoring then demonstrates over time that concentrations do not rebound above WQPS concentration limits, then any transfer of VOCs from soil vapor to groundwater is clearly insufficient to be of further concern. Though GSU's Henry's Law calculations infer potential for transfer of VOCs from the soil gas to the groundwater that could cause unacceptable aqueous concentrations, the extent of the actual transfer involves many factors and is far more complex and unpredictable. Direct monitoring of concentrations in groundwater is the only way to accurately gauge that impact. That being the case, with proper groundwater monitoring, there is no added value in monitoring soil gas. The same is true for potential impact to groundwater from soil leaching in the vadose zone. EPA

Reponses to Comments

Region IX risk-based screening levels for protection of groundwater are conservative indicators of potential for unacceptable impact to groundwater, but they are no substitute for direct monitoring of groundwater to accurately gauge the significance of that impact.

The monitoring record at this site of substantial, progressive reductions in groundwater concentrations in response to Kearney's corrective action suggests that if water quality protection standards can be achieved by continued groundwater extraction, then compliance can be sustained after stopping extraction. If instead, after stopping extraction concentrations rebound above WQPS concentration limits, Kearney will have little choice but to consider alternatives, including addressing possible continuing sources of VOCs in the vadose zone. But until then, in the absence of unacceptable risks to receptors from the vadose zone, there is no present purpose for vadose zone monitoring.

Specific Comment 18. Section G-3, Vadose Zone Monitoring Plan. The section incorrectly states that the site characterization has not changed since the permit renewal. The text should be revised to acknowledge the 2013 soil gas survey and the text should discuss the implication of the 2013 deep soil gas contamination at the site.

The application text in Section G-3 has been revised.

Specific Comment 19. Section G-3, Vadose Zone Monitoring Plan. The last sentence of the third paragraph states that Kearney will reevaluate the December 2006 work plan for remedial alternatives of the Shallow zone. This should be identified in the draft DTSC permit as a permit condition.

Kearney understands that this is an internal directive to the DTSC but has included text indicating that Kearney will include reevaluation of the 2006 Remedial Alternatives Work Plan as part of its activities under the renewed permit (see Section G-3).

Specific Comment 20. Section M-4, Public Exposure. The second paragraph references information obtained from DWR, including well completion reports and a list of private wells located within one mile of the site. However, Kearney did not provide well screen intervals for public and private supply wells as previously requested by GSU. Kearney should provide DTSC with copies of the well completion reports obtained from DWR, as well as the list of private wells located within one mile of the site. In addition, Kearney should provide a map and table summarizing the 117 wells with known screen intervals. The summary table should include well name, location, address, and well construction information. To maintain confidentiality of well locations, this information can be provided to DTSC outside of the permit renewal process.

Reponses to Comments

Dudek responded to Specific Comment 20 by providing well completion reports obtained from the Department of Water Resources (DWR) to L. Jameson in a separate email correspondence on April 10, 2015.

Specific Comment 21. Table G-1g, Groundwater Monitoring Schedule (also included as SAP Table 2).

- The table should be revised to identify the frequency of sampling for extraction wells if the groundwater treatment system is not operating.
- Not all wells are shown on the table. Please revise the table to include missing wells, including those that are currently dry. The table should be comprehensive of all wells at the site. For wells that are currently dry, the water levels should be measured if the water elevations increase.
- All wells along the property boundary that once contained contamination (for example, KS-2, KS-4, and KS-6) should be monitored on occasion. In addition, low levels of contamination reappeared in KS-4 and KS-6 during the rebound study, but these wells are not included in the program. While the site is in corrective action, all wells should be included in the program on an intermittent basis.
- Intermediate zone wells KPU-5 and KPL-5 are not included in the monitoring program, even though concentrations in these wells rebounded during the rebound study, including 1,4-dioxane, which is currently above the WQO. These wells should be included in the groundwater monitoring program. In addition, given the rebound exhibited at KPL-5, KD-5 should also be included in the monitoring program.
- The monitoring program does not include sampling and water level measurements for the Lower Intermediate zone. It is not clear why this zone is excluded from the revised monitoring program and should be subject to sampling.
- Numerous wells are not included in the routine groundwater elevation measurement program. A sufficient number of wells should be included to determine the rate and direction of groundwater flow within each zone and vertically between zones. For the Deep zone, only two wells are included in the measurement program, which is not sufficient for hydraulic gradient determination. In addition, the outermost wells are often excluded from the program, even though these wells are necessary to provide groundwater gradient information across the site.

Table G-1(g) and Table 2 of the WQSAP have been revised per Comment 21.

Specific Comment 22. SAP. FSP. Section 1. Introduction. The first paragraph states that the objective of the corrective action groundwater monitoring program is 1) to identify the WQPS and 2) affirm that COCs exceeding CLs do not migrate away from the facility while

Reponses to Comments

corrective action continues. The Part B and SAP text should be revised to clearly distinguish between the objectives of the document and purpose of corrective action and the corrective action monitoring program.

One objective of the document is to identify the WQPS. The objective of the corrective action groundwater monitoring program is to monitor the effectiveness of corrective action activities. The purpose of corrective action is to restore groundwater to concentrations below the CLs, not to prevent migration away from the site.

Kearney believes that the text in the WQSAP introduction was misinterpreted in this comment. However, we have revised the first objective to read as follows: "The objectives of the corrective action groundwater monitoring program are to (1) monitor the effectiveness of corrective action activities at the former Kearney-KPF facility." We believe that the second objective, which is stated as "(2) affirm that constituents of concern (COCs) exceeding their respective concentration limits (CLs) do not migrate away from the facility while corrective action continues," is a reasonable objective for a groundwater monitoring plan and does not warrant revision. We have also added the following sentence to the first paragraph in the introduction to distinguish between objectives of the corrective action monitoring plan and the corrective action program: "Conversely, the objective of the corrective action program is to reduce concentrations below their respective CLs throughout the well network."

Specific Comment 23. SAP. FSP. Section 2.3. Site History. The second paragraph states that the ponds were clean closed. Clean closure can occur only if no contamination remains, including groundwater contamination. The ponds were closed and waste was removed from the ponds. However, they were not clean closed. The text should be revised accordingly.

As certified in a report dated March 15, 1991, and affirmed by DTSC (Hermann Letter, December 17, 2007), closure of the regulated units was consistent with 22 CCR 66264.228(a)(1), which requires the owner or operator to "...remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate." This is informally, but commonly, referred to as a "clean closure"; nevertheless, Kearney has removed the term "clean closed" from the application text.

Specific Comment 24. SAP. FSP. Section 6.5.2. Well Construction, Development, and Decommissioning. The last paragraph discusses well decommissioning. Please note that a permit modification will be needed to destroy a well without replacement.

Kearney believes that requiring a permit modification prior to well destruction is unnecessary. Title 22 CCR 66264.97(b)(8) indicates that DTSC approval, but not a permit modification, is necessary prior to decommissioning a well.

Reponses to Comments

Specific Comment 25. SAP. FSP. Section 6.6. Inspections. Additional information regarding wellhead maintenance should be added. Activities that should be discussed include replacing well caps, cleaning and replacing gaskets and bolts of flush mounted well vaults, and verifying surface water flows away from wellheads. If the well will act as a conduit to the subsurface, maintenance repairs should be completed as soon as possible. Similar changes should be made to Section 10 of the QAPP (Operation and Maintenance).

Information regarding the wellhead maintenance activities listed in Specific Comment 25 has been added to Section 6.6 of the WQSAP.

Specific Comment 26. SAP. Table 4. The bottom of Table 4 states that reporting limits are listed in Appendix E (Current Laboratory QAPP). The reporting limits are not provided in the laboratory QAPP, which is provided as Appendix D to the SAP. The Part B Application should be revised to include the method detection limits and method reporting limits.

The laboratory Quality Assurance Project Plan (QAPP) information has been modified to include method detection limits and reporting limits. Additionally, each lab report includes information on method detection limits and reporting limits, since the reporting limit may change if dilution is required.

Specific Comment 27. SAP. Appendix A (DTSC Post Closure Permit RWQCB Monitoring Program). MRP R5-2003-0838 is missing from the Part B Application and should be added.

MRP R5-2003-0838 has been added to Appendix A of the WQSAP.

Response to Comments

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Department of Toxic Substances Control

Hai-Yong Kang

April 8, 2015

1. Application Part A, page 3, section 8: Permitted unit in the Kearney is groundwater treatment system. UV/OX and air stripper should be specified in the form as 'Other Treatment', process code 'T04'.

Part A Application text revised.

2. There are two 'Figure B-1 c'. The site topographic map should be 'Figure B-1 d'.

Figure title revised.

3. For the WQPS concentration limits, please be advised, as per the attached HERO memorandum, the standards should be updated. Please update data on Table B-1 in the Application and Table 1 of the SAP. HERO recommends updating the WQPS to use human health risk-based groundwater concentrations.

The Water Quality Protection Standard (WQPS) concentration limits (CLs) for each of the constituents of concern (COCs) have been updated and are listed in Table G-1f of the Part B Application (and Table 1 of the Water Quality Sampling and Analysis Plan (WQSAP)).

4. Please review attached GSU memorandum and update accordingly through Application Part B.

See responses to the memorandum dated April 8, 2015, below.

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Reponses to Comments

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Kearney KPF Facility, Stockton, California, US EPA ID. NO. CAD981429715
Kearney-KPF Facility, Stockton Post Closure Permit Renewal

Karen W. DiBiasio
December 22, 2014

General Comments 1 and 2, Specific Comments 1–3 (see memorandum for comments)

Per the April 9, 2015, email from H. Kang: No response is necessary for General Comments 1 and 2 or Specific Comments 1–3. Please see response to Specific Comment 4 below.

Specific Comment 4. Water Quality Protection Standards (WQPSs): Table B-1: The WQPSs are higher than current groundwater risk-based screening level (RBSL) concentrations for safe use as drinking water (DTSC Human Health Risk Assessment Note 4 and USEPA Regional Screening Levels [RSLs; November 2014] for tap water) for chloroform, 1,1-DCA, 1,2-DCA; 1,2-DCE (total), PCE, 1; 1,2-TCA, TCE and 1,4-dioxane. As presented in the table below, chemicals present in groundwater during 2013 at concentrations above screening levels include chloroform, PCE, TCE and 1,4-dioxane. As long as the LUC remains in place to prohibit use of the groundwater as a drinking water source, the risks from potential exposures to groundwater chlorinated VOCs and 1,4-dioxane are below regulatory levels of concern both from potential indoor air vapor intrusion (HERO's analysis available upon request) and ingestion during domestic or other drinking water uses. HERO recommends updating the WQPSs to use human health risk-based groundwater concentrations protective for a risk of 1×10^{-6} and hazard of 1.0.

[Table omitted]

The WQPS CLs for each of the COCs have been updated and are listed in Table G-1f of the Part B Application (and Table 1 of the WQSAP).

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Kearney-KPF Facility, Stockton Post-Closure Permit Renewal
Karen W. DiBiasio
April 24, 2015

Global Response to HERO comments dated April 24, 2015:

Kearney believes it is necessary to postpone the discussion of vadose zone monitoring until after the current permit is approved, for two primary reasons.

First, Kearney strongly objects to making a 10-year commitment to a vadose zone monitoring program that has not been thoroughly analyzed to ensure its efficacy and cost-effectiveness, and given the time pressure under which the current application package is being assembled, Kearney believes that this Post-Closure Permit renewal is not an appropriate vehicle for determination of a vadose zone monitoring plan.

Second, postponing a discussion of vadose zone monitoring would have no further negative impact on site conditions than the alternative of renewing the 2004 permit, which was suggested by the DTSC, because vadose zone monitoring is not included in the 2004 permit.

Consequently, Kearney believes the best way to proceed with determining a course of action on vadose zone monitoring is to include a review of the Remedial Alternatives Work Plan as a permit condition, as suggested in Specific Comment 19 in the GSU memorandum dated April 8, 2015.

General Comment 1. HERO Recommends Against Approval. HERO does not recommend approval of the March 2015 Post-Closure Permit Application. HERO recommends revision of the Post-Closure Permit Application to accurately reflect HERO's conclusions and comments on the health risk assessment results (see HERO memorandum dated January 23, 2015), address potential soil vapor sources beyond groundwater, incorporate WQPSs and preliminary groundwater cleanup goals that are purely health risk-based, and discuss the results of the soil vapor extraction (SVE) pilot study. HERO recommends the revised Post-Closure Permit Application address HERO's General and Specific Comments provided herein.

For information on potential soil vapor sources beyond groundwater, see response to Specific Comment 18 in the GSU memorandum. For information on groundwater cleanup goals, see response to General Comment 4 in the GSU memorandum. Per instruction from H. Kang on April 27, 2015, in order to expedite the permit application process, Kearney will address the soil vapor extraction pilot study separately from the Post-Closure Permit renewal.

General Comment 2. HERO Recommends Corrective Action that Addresses Soil Vapor. HERO does not concur with the Part B Application proposal to limit corrective action to groundwater pump and treat, because our review and analysis of the HRA in the Soil and Soil Gas Report in combination with our analysis presented below in Specific Comment 7

Reponses to Comments

have demonstrated potential human health risks from soil vapor migrating to indoor air at concentrations higher than feasible from a groundwater-only source.

See response to Specific Comment 7.

General Comment 3. Buildings on Top of Former Ponds. Apparently there are no restrictions against building on top of the closed RCRA units (former ponds) which have a passive methane landfill gas collection system. Currently there are three raised buildings (one currently occupied) located over the former ponds 2 North and 2 South that were brought on-site by Alpine for use as offices. Please clarify if there are any building restrictions over the former ponds. Due to the potential for preferential pathways and methane generation enhanced migration of soil vapors to indoor air (neither of which are factored into vapor intrusion to indoor air risk assessment) HERO advises against placement and occupancy of buildings over the former ponds, unless crawl spaces exist under them.

Per communication from Dan Pineschi of DTSC on November 14, 2011, DTSC determined on June 15, 2011, that “the buildings will not impede or interfere with the post closure care activities, including the operation and maintenance of the groundwater extraction and treatment system, and therefore are allowed to remain in place.” However, Mr. Pineschi stated that a permit modification was required. He stated further that “the DTSC Permitting Branch will be formulating language to add to the Permit or modify conditions to the Permit and Land Use Covenant.”

General Comment 4. Current Groundwater Concentrations Needed. Although the document focuses on groundwater contamination and cessation of the pump and treat groundwater remediation system, the only mention of current groundwater contaminant concentrations is in the text of Section G-1(d), Nature and Extent of Plume (pages 17-19). HERO recommends including a table with the results of the last four rounds of groundwater monitoring to transparently present the current conditions and seasonal variability in groundwater concentrations.

Table G-1d, which summarizes the results of the last four rounds groundwater monitoring, has been included in the revised permit application.

Specific Comment 1. Soil vapor HRA Results: Sections A-3, General Description, pages 2-3; D-1, Security Requirements, page 11; G-3, Vadose Zone Monitoring Plan, page 21-22; H, Environmental Monitoring and Response Program for Air, Soil, and Soil-Pore Gas, page 23; and M-4, Public Exposure, page 34: As described in detail in HERO’s January 23, 2015 memorandum on the Soil and Soil Gas Report, HERO does not agree that risks are acceptable for commercial worker land use. The risks and hazards exceeded the regulatory points of departure of 1×10^{-6} and 1.0, respectively. HERO recommends revising these sections consistent with findings in HERO’s January 23, 2015 memorandum.

Reponses to Comments

Vadose zone monitoring and risk assessment associated with soil gas will be discussed outside of this permit application (see Global Comment above).

Specific Comment 2. Previous HHRA: Page 4, Section A-4, Post-Closure Notices: Please revise the text to reflect that the HHRA evaluated in 2003 by HERO (formerly HERD), was limited to exposures from soil in the ponds areas and that a Land Use Covenant was not required for the continued commercial/industrial use of the property. Previously, HERD reviewed the soil assessment reports and a soil human health risk assessment for on-site workers and off-site residents for the pond areas. HERD concluded that based on soil data, with no groundwater or soil gas evaluated in the risk assessment, land use restriction was not required for the current use of the property (HERD, 2003).

The text in Section A-4 has been revised.

Specific Comment 3. Underground Preferential Pathways: Section 8-1, Facility Description, page 5: The sewer and septic system underground piping may affect the conceptual site model in terms of source areas and migration to potential human receptors. Underground utility corridors may also affect the migration of contaminants to potential human receptors.

HERO recommends including locations of underground conduits on Figure B-1 and discussing their potential for preferential pathways of migration for the liquid wastes released to ground surface or via drains and for soil gas.

Utility entrances and foundation cracks evident on the sides of buildings were mapped in the 2013 Soil and Soil Gas Report, Appendix I. Locations of all underground sewer and septic lines have been requested from the site owner many times; they have not been provided to date.

Specific Comment 4. Covers of Former Ponds: Section F-1, Inspection and Maintenance, page 15: While vegetation may not be present within/over the capped former ponds, three portable buildings are located on top of portions of the capped former ponds that may result in significant water infiltration in the event of a building fire.

The desired response to this comment is unclear.

Specific Comment 5. Groundwater Concentrations: Pages 17 - 19, Section G-1 (d), Nature and Extent of Plume: As per HERO's previous comments in our December 22, 2014 memorandum, HERO continues to recommend revision of the text to include discussion of the maximum groundwater concentrations detected over the last four rounds of sampling. For HHRA purposes, four rounds of groundwater sampling are considered to determine reasonable maximum exposure point concentrations, not only the most recent round.

The text in Section G-1(d) has been revised to discuss the maximum groundwater concentrations measured over the last four rounds of sampling.

Reponses to Comments

Specific Comment 6. Statistical Evaluation: Page 20, Section G-1 (i), Statistical Evaluation Plan: Appendix G is incorrectly cited as containing the Statistical Evaluation Plan which is actually contained in Appendix H. HERO did not review Appendix H with the complete details on the Statistical Evaluation Plan, however HERO cautions that four rounds of groundwater data, not just the most recent round, is recommended by HERO for ensuring protectiveness of human health.

The appendix reference has been corrected. The Statistical Evaluation Plan specifies a minimum of four rounds of groundwater data.

Specific Comment 7. Soil Vapor Source(s): Vadose Zone Monitoring Plan, Section G-3, pages 21 - 22: The data do not support that groundwater is the only source of soil vapors from site contaminants. Based on HERO's analysis presented in the table below, the data overwhelming support soil vapor is not due to groundwater contamination alone.

[Table omitted]

HERO recommends revising the text to include soil vapor sources beyond solely groundwater, consistent with conclusions supported by the data as presented below and in the April 8, 2015 DTSC memorandum by Lora Jameson in the Geological Services Unit (GSU). HERO further recommends, as per our January 23, 2015 memorandum on the "Soil/Gas and Soil Sampling Report," additional vadose zone monitoring and evaluation of potential indoor air risks to determine whether soil vapor mitigation is warranted to protect human health. HERO does not recommend limiting corrective action to groundwater pump and treat because the data do not support the supposition that groundwater is the sole source of soil vapor.

Kearney asserts that the most probable source of soil vapors at the site is groundwater. HERO's analysis demonstrates that current groundwater concentrations are not sufficient to produce observed concentrations of soil vapor; however, historical groundwater concentrations were significantly higher, and current soil vapor concentrations may be a legacy of the historical plume. Additional vadose zone monitoring and risk assessment will be discussed outside of this permit application (see Global Comment above).

Specific Comment 8. SVE Pilot Study: Vadose Zone Monitoring Plan, Section G-3, pages 21 - 22: The report mentions on page 22 that an SVE pilot study was initiated in December 2014, but does not address the intended or actual duration of the pilot study and does not discuss the outcome of the pilot study. HERO recommends revising the text to include the duration of the pilot study and the outcomes; if the SVE pilot study is still underway, HERO recommends including the preliminary or interim outcome findings.

Reponses to Comments

The soil vapor extraction pilot study was conducted from December 2014 to March 2015. Per instruction from H. Kang on April 27, 2015, in order to expedite the permit application process, Kearney plans to address the soil vapor extraction pilot study in a subsequent communication.

Specific Comment 9. MCLs: Section M-5, Corrective Action Program, page 34: California MCLs, which are not purely health risk-based, are proposed as the WQPSs. MCLs, while designed for drinking water, are not purely health risk-based, that is the risk and/or hazard are often above the regulatory points of departure of 1×10^{-6} and 1.0, respectively, because MCLs take into account cost, technical feasibility, and other considerations when establishing the MCLs for drinking water providers. HERO recommends presentation and use of purely health risk-based groundwater concentrations to allow DTSC Risk Managers to make informed decisions regarding the potential human health risks associated with a cleanup / corrective action decision.

A health risk analysis was conducted to demonstrate that proposed CLs for each of the COCs are protective of all biological receptors, based on the drinking water and vapor intrusion into indoor air from groundwater exposure pathways. The results of the risk analysis and proposed CLs are discussed in Section G-1(f) of the Part B Application.

Specific Comment 10. Water Quality Protection Standards (WQPSs): Table B-1: The WQPSs are higher than current groundwater risk-based screening level (RBSL) concentrations for safe use as drinking water (DTSC Human Health Risk Assessment Note 3 and USEPA Regional Screening Levels [RS Ls; November 2014] for tap water) for chloroform, 1, 1-DCA, 1,2-DCA, PCE, 1, 1,2-TCA, TCE and 1,4-dioxane. As presented in the table below, chemicals present in groundwater during 2013 at concentrations above screening levels include chloroform, PCE, TCE and 1,4-dioxane. As long as the LUC remains in place to prohibit use of the groundwater as a drinking water source, there will be no exposures and no risks from groundwater chlorinated VOCs and 1,4-dioxane from ingestion during domestic or other drinking water uses. HERO recommends updating the WQPSs to use the lower of MCLs or human health risk-based groundwater concentrations protective for a risk of 1×10^{-6} and hazard of 1.0. HERO is especially concerned with the use of the TCE MCL which was established prior to the TCE toxicity reevaluation in recent years that has revealed developmental cardiac effects from short term gestational exposures.

[Table omitted]

A health risk analysis was conducted to demonstrate that proposed CLs for each of the COCs are protective of all biological receptors, based on the drinking water and vapor intrusion into indoor air from groundwater exposure pathways. The results of the risk analysis and proposed CLs are discussed in Section G-1(f) of the Part B Application.

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DTSC Response to Kearney's Proposed Post Closure Renewal Application
Changes, Former Kearney-KPF Facility, Stockton, California, U.S. Environmental
Protection Agency (EPA) Id. No. CAD981429715

Hai-Yong Kang
November 16, 2015

1. Adjustment to the Groundwater Monitoring Compliance Period

Kearney has proposed that 1) after one year of meeting groundwater concentration limits, the facility could request a permit modification to transition from corrective action monitoring to detection monitoring in accordance with Cal. Code Regs., tit. 22, § 66264.1 OO(g), and 2) after three years of meeting groundwater concentration limits Kearney could request a permit modification to end post closure monitoring in accordance with Cal. Code Regs. tit. 22, § 66264.90(e).

These anticipated future requests will be processed separately from the Application, and pursuant to Cal. Code Regs., tit. 22, § 66270.42. Discussion of this proposal is premature at this time. Accordingly, it is inappropriate for the Application to include assumptions that the permit modification application will be approved. Instead, the Application should assume that Kearney will continue to conduct post closure activities and the corrective action groundwater monitoring program, including operation and maintenance of a groundwater extraction and treatment system, to comply with Cal. Code Regs., tit. 22, § 66264.228 (a) and (b).

Kearney should remove all inappropriate references to terminating groundwater monitoring, including but not limited to, discussions in Section E-1 (Cost Estimate) and associated tables (e.g., Table E-1A). This is consistent with the previous recommendation given to Kearney by DTSC in the second Notice of Deficiency.¹

Kearney has revised the Part B Application to remove all references to terminating groundwater monitoring, including text in Sections A-3 (multiple sections), C, E-1, G-1(g), M-5, and Table E-1a. The text has been replaced with language indicating that Kearney will petition DTSC for a permit modification for detection monitoring after CLs have been met in all wells for a period of 1 year following termination of corrective action measures.

2. Change of WQPS Concentration Limits

Kearney has proposed groundwater concentration limits that are greater than concentration limits in the existing permit. Kearney asserts that the concentration limits

¹ See April 8, 2015 DTSC Second Notice of Deficiency, Memorandum to Hai-Yong Kang from Lora K. Jameson dated April 8, 2015, at p. 2 of 8.

will be protective of human health and environment. Kearney also asserts that the new limits are needed because the current concentration limits are technologically or economically infeasible.

Kearney proposed Maximum Concentration Levels (MCLs) as concentration limits for all volatile organic compound (VOC) contaminants and 50 micrograms per liter ($\mu\text{g/L}$) as the concentration limit for 1,4-dioxane. Based on our initial evaluation, DTSC agrees with Kearney that MCLs as concentration limits appear acceptable for VOCs. At this point, it less clear whether the proposed concentration limits for 1,4 dioxane will be acceptable. Regardless, before DTSC can grant any of these concentration limits requested by Kearney, it needs to know the human health risks associated with the proposed concentration limits. This information is required by section 66264.94 of title 22 of the California Code of Regulations, and was requested by DTSC in its Second Notice of Deficiency dated April 8, 2015.²

Kearney has not yet demonstrated that the proposed concentration limits for VOCs and 1,4 dioxane are human health protective. To make such a demonstration, Kearney should provide a human health risk assessment for indoor air vapor intrusion from groundwater and domestic drinking water on an additive basis, along with an explanation of why Kearney believes compliance with the proposed concentration limits will be protective of human health and the environment within the meaning of Cal. Code Regs., tit. 22, § 66264.94. In assessing the potential groundwater risks to any biological receptor, DTSC is required to evaluate the risk “as if exposure would occur at the point of compliance.”³ Further, the risk assessment must be done on an additive basis in the absence of scientifically valid data to the contrary.⁴ For more information on assessing human health risks on an additive basis, please see DTSC Human Health Risk Assessment (HHRA) Note 4 (Oct. 6, 2015), Section 111.D, “Additivity of Risks.” <http://www.dtsc.ca.gov/AssessingRisk/upload/HERO-HHRA-Number-4-0ctober-6-2015.pdf>

For indoor air risk, DTSC recommends using the DTSC-modified Johnson & Ettinger Model (GWSCREEN) for predicting indoor air risks from groundwater contamination. It can be downloaded from <http://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm>, which also contains additional risk information. Kearney should calculate residential indoor air risks using the proposed concentration limits and default soil properties for

² See April 8, 2015 DTSC Second Notice of Deficiency, Memorandum to Hai-Yong Kang from Karen W. DiBiasio dated December 22, 2014, at p. 4 of 5.

³ Cal. Code Regs., tit. 22, § 66264.94(d)(4).

⁴ Cal. Code Regs., tit. 22, § 66264.94(f) (“In the absence of scientifically valid data to the contrary, theoretical risks from chemicals associated with the release from the regulated unit shall be considered additive across all media of exposure, and shall be considered additive for all chemicals having similar toxicological effects or having carcinogenic effects”).

Reponses to Comments

sand. For domestic drinking water use of groundwater, DTSC recommends an assessment consistent with the HHRA Note 4 on screening level risk evaluations, which utilize screening levels recommended in HHRA Note 3.

A health risk analysis was conducted to demonstrate that proposed CLs for each of the COCs are protective of all biological receptors, based on the drinking water and vapor intrusion into indoor air from groundwater exposure pathways. The results of the risk analysis and proposed CLs are discussed in Section G-1(f) of the Part B Application.

3. Relocation of the POC

Kearney proposed to change the POC location from the location of the former Hazardous Waste Management Units (regulated units) to the edge of the property. If the POC were moved to the proposed location, Kearney asserts that the increased distance of groundwater flow would allow dilution and attenuation of 1,4-dioxane to a level that is protective of human health and the environment.

Cal. Code Regs., tit. 22, § 66264.95 (a) states that "For each regulated unit, the Department shall specify in the facility permit the point of compliance at which the water quality protection standard of section 66264.92 applies. The point of compliance is a vertical surface, located at the hydraulically down gradient limit of the waste management area that extended through the uppermost aquifer underlying the regulated unit." The regulations are clear that the POC must continue to underlie the regulated units and may not be moved to the property boundary.

No response necessary.

4. Installation of an Additional Well

Kearney proposed to install a new shallow groundwater monitoring well to evaluate the vadose zone to groundwater pathway. DTSC concurs that new shallow groundwater monitoring well is needed in the vicinity of soil gas sampling location KB18, along the southwest portion of the former main factory building. This is an area where elevated soil gas concentrations were detected and have the potential to impact groundwater.

No response necessary.

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REFERENCES

- DTSC (Department of Toxic Substance Control). 2003. "Lead Agency for Kearney-KPF, 1624 East Alpine Avenue, Stockton, California, Environmental Protection Agency ID No. CAD98149715." Authored by Wade Cornwell. January 31, 2003.
- DTSC. 2007. "Clarification of the regulatory status of the closed pond areas of the former Kearney KPF facility, Stockton, San Joaquin County, EPA ID No. CAD981429715." Authored by Martin G. Hermann, MSChE. December 17, 2007.

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