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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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July 29, 2004

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Ms. Cindy Caulk
Program Coordinator
Aerojet General Corp.
P.O. Box 13222
Sacramento, CA 95813-6000

AEROJET-GENERAL SACRAMENTO
ENVIRONMENTAL OPERATIONS

SUBJECT: Response to Agency Comments on the Draft Baseline Risk Assessment ("BLRA") for the Perimeter Groundwater Operable Unit ("OU5")

Dear Ms. Caulk:

The Environmental Protection Agency ("EPA"), Regional Water Quality Control Board and Department of Toxic Substances Control (collectively "Agencies") have reviewed ERM's submittal on behalf of Aerojet "Response to Agency Comments on the Draft BLRA for the OU5" dated July 9, 2004. The Agencies provide the following comments and clarifications for inclusion in the next submission due February 15, 2005:

Section 2: Data Collection and Evaluation

Original Comment #

- 5c. Please provide further clarification. Was data verification performed on 100% of the data, and only 10% were validated? Indicate in the data validation discussion how much data were subjected to various levels of review (e.g., Tier 2 Assessment - Data Verification; Tier 3 Assessment - Data Validation).
- 5d. Please incorporate your response in the revised risk assessment.
- 5e. The BLRA needs to have an evaluation of detection limits associated with analytical data used in the BLRA as specified in comment 5e. Indicate what detection limit was used in estimating exposure point concentrations when combining non-detect data with detected data (e.g., Maximum Detection Limit or Practical Quantitation Limit ("PQL")). Unless otherwise explained, the PQL should be used because it is more reliable and more conservative.
- 5f. Please incorporate in the BLRA a discussion on how qualified data were used in the BLRA. We're all "R" flagged data removed from the data set. Were all "J" flagged data used in the BLRA?
- 6. The BLRA needs to be a stand alone report. Separate figures for each zone depicting groundwater wells used to develop Contaminants of Potential Concern ("COPC") at the property boundary and beyond the property boundary need to be part of the BLRA. Distinguish between those wells that were identified as being at the property boundary and those wells that are beyond the property boundary.

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8. According to the Risk Assessment Guidance for Superfund, unfiltered groundwater data should be used in the screening and selection of COCs. Filtered data may be used in the Uncertainty Analysis to show risks from the dissolved fraction and how that compares with the total fraction.
10. Aerojet's response would indicate that detection limits were not evaluated in the BLRA. Were the non-detect data reviewed? Non-detect data should be added to the data summaries and evaluated. The evaluation should answer the question as to whether there are issues due to high reporting limits. It is possible that some chemicals not detected in groundwater may need to be carried forward in the BLRA due to high reporting limits.

Section 3: Exposure Assessment

Original Comment

- 13., 15., and 16. Please resubmit the Site Conceptual Model ("SCM") version that included the ecological receptors.
14. Please incorporate the following comment into the BLRA: *"Surrounding surface water bodies and associated use were not described as part of the exposure assessment. The exposure assessment should provide a complete description of the land and water use. The exposure assessment should provide a discussion of surface water use and a better rationale as to why groundwater does not impact surface water. A Rapid Bio Assessment needs to be done for Alder Creek comparing the point up stream as it enters Aerojet property to where it passes in the pond area owned by the City of Folsom."*
17. The revised SCMs needs to discuss current and any anticipated future change to land use.
19. Comment responses 19a through 19e refer to the response provided in comment 13. Comment 13 is general and it is not clear whether Aerojet accepts EPA's comments on the SCM as related to responses 19a through 19e.
 - 19a. The revised SCM contains an on-site resident and a hypothetical off-site resident. Clarify whether the on-site resident is current or future. Regarding exposure routes connected to potable and non-potable use, clarify in the notes that inhalation exposure includes inhalation of volatile chemicals while showering for the ind/comm worker, and inhalation of volatiles while showering and during other noningestion uses of groundwater (e.g., showering, cooking, laundering, and dishwashing) for the resident.
 - 19b. Why is the on-site commercial/industrial worker not identified as being potentially exposed to groundwater via inhalation of volatiles (indoor and outdoor), dermal contact, and ingestion? These are completed pathways and the SCM should reflect that. Also, identify whether the worker is current or future. The commercial/industrial worker should also be identified as being exposed to soil vapor.
 - 19e. See comments under 19a.
 - 19f. Couldn't a trespasser be exposed to off-site surface water and sediment? Clarify in the SCM the specific surface water bodies that someone may be subjected to (e.g., on-site drainages, off-site creeks or ponds).
25. Also, add a discussion on the criteria used to identify a chemical as volatile.

27. Depth to groundwater should not be Layer specific. The potentiometric head may be different in each of the layers resulting in an apparent depth to water greater in a upper zone than a lower zone. However, when drilling a boring the first encountered water would be in the uppermost water bearing zone regardless of the potentiometric measurement. It would be better to refer to the value as something other than depth to groundwater.

Should you have any questions on this correspondence, please contact me at (415) 972-3146, Alex MacDonald at 464-4625 or Ed Cargile at 255-3703.

Sincerely,


Charles S. Berrey
N. CA Cleanup Section (SFD-7-2)

cc: Ed Cargile, CALEPA/DTSC
Alex MacDonald, CALEPA/RWQCB