

Draft Meeting Notes: Community Advisory Group (CAG) - Aerojet Superfund Issues, December 5, 2012

### **1. Introductions and Attendees**

Attendees: Chris Fennessy (Aerojet), Janis Heple (CAG), Jimmy Spearow (CAG), Steven Ross (DTSC), Kevin Mayer (EPA), Gary Riley (EPA), Travis Anderson (GSWC), Alta Tura (Habitat 2020), Alex MacDonald (RWQCB), Burt Hodges (SARA), Rick Bettis (Sierra Club), Larry Ladd, Tara Fitzgerald (Recorder, Weston Solutions, Inc.).

### **2. Aerojet Community Update – Chris Fennessy, Aerojet**

Aerojet will mobilize on 12/12/12 to convert the Woodecliff AC-12 groundwater supply well into an extraction well and connect it to GET-K.

Within the Perimeter Groundwater OU5, soil excavation for the C-4 area has occurred. Additional excavation is necessary to remove lead contaminated soils. Excavation at C-41 is complete with 3-400 truckloads of perchlorate contaminated soil being taken to Buttonwillow for disposal.

Aerojet is putting together an access agreement with the County of Sacramento for a new monitor well near extraction well 4380 (American River parkway in Gold River).

Aerojet has collected samples in Area 4900 to assist in the design of a soil vapor extraction system as part of the Perimeter Groundwater OU5 remedy for Area 4900. The Aerojet fence line along Head Ave was moved back approximately 150 feet within Area 4900.

Kevin Mayer: The soil vapor extraction (SVE) sampling is required because since the original soil vapor extraction wells were installed many years ago, the location of the area requiring remedy has changed as concentrations of VOCs have moved

### **3. Document schedule; review & discussion – All**

The draft July and September 2012 minutes were reviewed by the CAG and finalized.

Gary Riley: Agencies will receive a draft Remedial Investigation document for the Island OU (OU-7) at the end of January 2013. After the agency review, the Agencies will be able to share more information with the CAG. The Aerojet site was divided up into operable units (OUs) to manage cleanup, phases of the investigation, etc. The Island Operable Unit (OU7) is where some of the heaviest industrial activities occurred.

Question: Is TCE present as pure product?

Answer: Primary sources of TCE are present with the Island OU. OUs were designed to deal with sources that have the potential to contain TCE as a pure product.

Concentrations in groundwater and soil vapor indicate that the potential is there for pure

phase TCE. Downgradient perimeter control of groundwater is handled within the PG-OU.

Question: No areas were defined by nitrosamines?

Answer: Correct. Though there is some NDMA in groundwater beneath the Island OU.

Chris Fennessy: Note that Area 40 is part of the Island OU.

Question: So Area 40 has high levels of TCE and perchlorate?

Answer: Yes.

TCE is present as concentrations within Area 40 greater than 10,000 micrograms per liter. TCE may exist as pure product.

#### **4. Boundary Operable Unit (OU-6) – Gary Riley, EPA**

The Boundary Operable Unit (OU-6) Feasibility Study (FS) was submitted to the agencies on 9/30/12. The CAG had a general discussion of what a Feasibility Study (FS) is. After a Remedial Investigation, a Feasibility Study looks at what cleanup actions are available. A Proposed Plan carries cleanup actions further along and proposes a preferred remedial alternative. The Boundary Operable Unit (OU-6) location was discussed. Feasibility Study figures were shown that outline areas for further action.

Question: What is the risk used to calculate cleanup levels?

Answer:  $10^{-6}$  for unrestricted use.

Question: Is the risk value  $10^{-4}$  or  $10^{-6}$ ?

Answer: There are cases where the acceptable risk is could be  $10^{-4}$ , but most of the areas in Boundary OU-6 are planned for residential use (unrestricted), which is  $10^{-6}$ . Areas that exceed a residential use risk of  $10^{-6}$  but are slated for commercial use and will have a remedy that restricts the use to commercial/industrial, and have an associated risk of  $10^{-6}$  or less.

The Remedial Investigation provides a sample by sample discussion. The Feasibility Study brings it back to areas that require cleanup. A large portion of Boundary OU-6 has, generally TCE, VOCs in groundwater, and hence, in the unsaturated zone due to off-gas from the groundwater. Broad institutional controls (UCs) would be required for construction to mitigate vapor intrusion due to VOCs from groundwater.

Question: What contractor prepared the figures for Aerojet?

Answer: Shaw Environmental.

Some areas will require pavement/structures to prevent direct contact with soils and/or prevent adverse impacts to groundwater. A discussion with the CAG about the Proposed Plan before it is published is not formal. Formal comments should be submitted concerning any published Proposed Plan to EPA.

A letter from Aerojet to the CAG, RE: Responses to Community Advisory Group Comments on the Final Boundary Operable Unit (OU-6) Remedial Investigation and Risk Assessment Aerojet Superfund Site, Sacramento County, California, was provided during the meeting.

Question: Is there a predicted date for the proposed plan for OU-6?

Answer: The EPA wants a draft-Proposed Plan by the end of January 2013. The EPA would hopefully discuss the Proposed Plan with the public by the end of February 2013.

Comment: The CAG has not seen the FS. How can a Proposed Plan be out in January 2013?

Chris Fennessy: The FS is available to the CAG. It was sent to Janis and to the repositories in September 2012. The Proposed Plan commenting period would be a great time to bring up issues with FS that may affect the Proposed Plan.

The EPA provided a letter to the CAG Re: SUBJECT: Community Advisory Group Comments, Final Boundary OU RI Report.

Gary Riley: Agencies have reviewed the Aerojet letter to the CAG and consider it acceptable. However, agencies are aware that the CAG wants a letter from the EPA and DTSC.

Comment: Toxicity levels can change in between the Remedial Investigation and a Record of Decision (ROD).

Aerojet has looked at updated perchlorate toxicity levels, TCE toxicity levels, and the change in the lead California Human Health Screening Level (CHHSL) from 150 parts per million (ppm) to 80 ppm. Aerojet and the Agencies will not revise the Remedial Investigation but will take new toxicity screening levels into account when coming up with cleanup levels and areas that require remediation

Question: Why not prepare an addendum to the Feasibility Study to address those changes? Otherwise, the public has no way of knowing what toxicity levels are used in the Proposed Plan.

Alex MacDonald: The Proposed Plan is the document you are reviewing and will include the toxicity levels that were used in developing the proposed plan. This is what EPA did on the OU-5 Proposed Plan

Comment: But the Proposed Plan is very short compared to an RI or FS. It won't discuss specific areas.

Comment: The toxicity changes occurred before document was finalized.

Chris Fennessy: Comments are welcome on the Feasibility Study. But, those comments are addressed during development of the Proposed Plan and subsequent Record Of Decision

Gary Riley: The process is that the Feasibility Study has identified areas requiring cleanup.

Question: Can you use the Feasibility Study to prioritize the cleanup areas so we can study the areas that are going to be cleaned up sooner?

Answer: We don't know the sequence of the cleanup yet.

Question: When you do know can you let the CAG/public know?

Kevin Mayer: Remediation plans will be available to the public.

Comment: It is not clear how to convey the Proposed Plan to the public when the plan is based on the Feasibility Study. The Feasibility Study does not have updated toxicity levels.

Chris Fennessy: The FS depends on Risk Assessment that used toxicity criteria available in November 2011. By the time you update the RA with the toxicity levels currently available, new toxicity criteria are generally available. Aerojet created a map that shows any areas with lead in between 80 to 150 ppm and shows any areas that are outside of the current areas proposed for remediation.

Gary Riley: All data were evaluated for changes in TCE toxicity, perchlorate, and lead for a proposed plan. New lead screening changes did not change areas considered for remediation. In the ROD, 80 ppm would be used as the cleanup standard.

TCE toxicity and perchlorate in home-grown produce are addressed within the EPA response to the CAG. Dr. Mitchell and Dr. Smucker prepared an assessment that provided a residential soil screening level for perchlorate of 60 parts per billion (ppb) for children and 90 ppb for women of childbearing years.

##### **5. Presentation on 10/1/2012 meeting between Aerojet and SARA – Clyde MacDonald, SARA President**

Clyde MacDonald was not available to give a presentation to the CAG. Burt Hodges, SARA member presented information to the CAG. Burt Hodges noted that he is a Carmichael water user as well as a SARA member.

During the 10/1/12 meeting with Aerojet, it was discussed that the cleanup of contaminated groundwater is expected to last approximately 200 years. The president of Aerojet stated that the timeframe is not acceptable. The president of Aerojet also stated that Aerojet will attempt to clean up the groundwater faster using new technologies that are under development. SARA feels that cleanup of groundwater is essential.

Larry Ladd: My main concern is nitrosamines. I heard Mr. Boley state at the SARA meeting that a total assay of nitrosamines can be conducted within 1 week. The assay would provide a concentration of total nitrosamines, not only N-Nitrosodimethylamine (NDMA). (Chris Fennessy provided additional information concerning the comment on 01-07-13: I believe what Mr. Boley stated was that Aerojet would look into the availability of a viable, USEPA-approved nitrosamine assay method and, if available, would be willing to analyze some samples using this method.)

Janis Heple: My understanding of the meeting between SARA and Aerojet was that it was a private meeting. However, based on agency member attendance, this was a public meeting and the CAG should have been included in the list of attendees. Because this is an extremely complex site it is important for the community to work together on understanding all of the issues as the cleanup moves forward, and that the cleanup not be compromised.

## **6. Regional Board Aerojet Cleanup Overview – Alex MacDonald, RWQCB**

Presentation notes were handed out (see attachments).

AC-12 - Aerojet is in the process of revamping an existing groundwater supply well to become an extraction well. A new drinking water well is being drilled on Paseo and Malaga.

GET E & F – Aerojet is purchasing new ion exchange resin units that will be operational in 2013.

GET H – New IX units are being purchased in order to increase capacity for perchlorate treatment and address pressure issues that are reducing available treatment capacity.

New extraction wells in Zone 3 are planned in order to fill in gaps in the capture area.

A new Zone 1 monitor well near current well 4380 will be constructed to help assess area capture and the need for additional extraction wells.

Bullets S and U in attachment were discussed.

## **7. Tentative 2013 meeting dates – Action Items**

The next Aerojet CAG meeting is scheduled for January 16, 2013. Tentative dates for 2013 are shown below:

- January 16
- March 13
- May 15
- July 17
- September 18