Final Meeting Minutes
Restoration Advisory Board (RAB) Meeting
Former Galena Forward Operating Location (FOL), Alaska
Galena, Alaska
03 April 2019

Time/Place: Wednesday at 8:00 pm, 03 April 2019 – Larsen Charlie Hall, Galena, Alaska

Attendees:

Twenty-one people attended the RAB meeting including representatives from the Air Force Civil Engineer Center (AFCEC), the Alaska Department of Environmental Conservation (ADEC), the Alaska Department of Transportation (ADOT), Galena RAB members, community members, and Air Force remediation contractors (Parsons and CH2M/Jacobs). The following is a list of those attending the meeting.

Christiana Hewitt, AFCEC
Donna Kozak, Booz Allen Hamilton (BAH)
Bruce Henry, Parsons
Ed Heyse, Parsons
Win Westervelt, CH2M/Jacobs
Jamie McKellar, ADEC
Eric Breitenberger, ADEC
Sam Myers, ADOT
Tim Bodony, RAB Co-chairman
John Stam, Community RAB Member
Nolan Aloysius, City of Galena Mayor
Bob Rebarchik, US Fish and Wildlife Service
Dena Sommer-Pedebone, Gana-A' Yoo
Terry Webb, Khotol Services, Inc.
Phil Koontz, Galena Resident
Russ Sweetsir, Galena Resident
Ranch Burgett, Galena Resident
Alfred Evans, Galena Resident
Shirley Cleaver, Galena Resident
Matt Ahlrichs, CH2M/Jacobs
Karlin Swearingen, CH2M/Jacobs

Agenda: See Attachment 1

Introduction:

Christiana Hewitt opened the RAB meeting by introducing the presentation on Performance-Based Remediation (PBR) cleanup efforts.

Presentation

Performance-Based Remediation

Bruce Henry (Parsons) gave a presentation (Attachment 2) with an update on the PBR contract. The PBR contract is for the cleanup of 32 sites at the Former Galena FOL. Six sites have achieved cleanup complete to date. Installation of remedial systems started in 2015 and will

continue through 2019. By the end of 2019 all remedies will be in place. Maintenance and operation of the remedial systems will continue through the summer of 2020. There will be a new cleanup contract in 2020 with some overlap with the current PBR contract; 2020 will be a transition year.

Bruce reviewed the activities that occurred over the winter of 2018/2019, which include the following:

- Bioventing and soil vapor extraction (SVE) systems running and monitored monthly at 13 sites
- Vertical and horizontal air sparging systems running and monitored monthly at 7 sites (3 with SVE)
- An SVE system at Site OW024 and a vertical air sparge system at Site CST011 have been turned off pending confirmation sampling results for closure
- One SVE system (Site SS025) only operates during the summer and fall
- April/May 2018 – The operating systems will be shut down for annual soil vapor sampling to track cleanup progress
- All operating systems (except Site SS025) will be started back up in the fall and operated over the winter of 2018/2019 when water levels are lower

Bob Rebarchik (US Fish and Wildlife Service) asked about piping that was sticking out of the ground at the Combat Alert Cell (CAC) hangar (Site CST011), and when it would be fixed or removed. Win Westervelt (CH2M/Jacobs) replied that the exposed piping was observed during a site visit earlier in the day and that it would be repaired this summer as part of site restoration.

Bruce indicated that Parsons will conduct vapor monitoring in April and May when water levels are low enough that deeper vapor monitoring points are exposed. Win indicated that CH2M/Jacobs will perform their annual vapor monitoring event in October when groundwater elevations are also low.

A figure was shown that provided the location of the remedial systems in operation at the Former Galena FOL (see Attachment 2). Bruce then presented a list of the field work that will occur during the 2019 field season which includes the following:

- Excavations at the Former Waste Accumulation Area South of Building 1499 (Site SS018), the Disposal Site West of Dike (Site DP023), and the Former Fuel Filling Station (Site ST005 Area D)
- Complete installation and start up SVE system at Building 1845 TCE Area/Building 1700 Refueler Maintenance Shop (Sites SS006/SS019)
- Expansion of the bioventing system at Site ST010
- Other field work to include annual groundwater monitoring and landfarm operation
- Performance and confirmation soil sampling at select remediation sites

A figure was presented (see Attachment 2) showing the locations where remedies will be installed in 2019, and a more detailed description followed.

Site SS018: Site SS018 was a waste accumulation area south of the steam plant where a fuel pipeline leak impacted approximately 1,000 cubic yards of soil. Soil contamination extends to approximately 10 feet below ground surface. Soil around pipeline will be removed by hand, or

the pipeline will be cut and replaced, and the petroleum-contaminated soil will be excavated and treated at the Galena landfarm.

Site DP023: Site DP023 (Disposal Site West of Dike) was a waste disposal area south of Million Gallon Hill. A Time Critical Removal Action (TCRA) in 2015 removed about 2/3 of the disposal area debris and soil. Parsons will excavate the remaining disposal and debris area in 2019. Soil and waste material will be segregated and characterized for disposal. Waste may be disposed of in Galena or out of Galena at licensed waste disposal Facilities. Petroleum-contaminated soil will be treated at the Galena landfarm.

Site ST005 Area D: Site ST005 Area D was a fuel fill station located adjacent to the current City of Galena fuel fill station. A limited excavation in 2018 removed 75 cubic yards of petroleum-contaminated soil around the concrete fill stand, but that contamination remains underneath the concrete fill stand and within the roadway south of the fill stand. Win Westervelt (CH2M/Jacobs) explained that further excavation in 2019 will remove the remaining contaminated soil beneath and south of the pad. To access the soil beneath the concrete fill stand, soil will be excavated on the north side and the concrete pad will be rolled over and pushed to the bottom of excavation. Petroleum-contaminated soil will be treated at the Galena landfarm. The excavation would take 4 to 5 days and the roadway would need to be closed. Nolan Aloysius (City Mayor) stated that the City fuel fill stand could be accessed from the north gate during that time.

Win Westervelt also explained that the concrete fill stand is too large for any equipment in Galena to move. Nolan asked what the dimensions of the concrete slab were. Win replied that the slab is almost 3 feet thick, about 7 feet wide, about 27 feet long, and weighs approximately 50,000 pounds. Win estimated there is about 40 to 50 cubic yards of contaminated soil remaining.

Site SS006: The SVE system at Site SS006 (Building 1845 TCE Area) will be completed and started in June and July of 2019. Vent wells were installed in 2018 and will be connected to the blower shed located on east side of City Storage shed. Emissions will be through a stack 30 feet tall. Startup of the SVE system will be a slow ramp up in extraction flow and emissions. Volatile organic compounds (VOCs, including trichloroethene [TCE]) will be measured in ambient air with a photoionization detector (PID) at the blower shed and at 50, 100 and 500 feet from the blower shed in all directions. Twenty-one (21)-day ambient air monitoring stations will be located north, south, east and west of stack. Emission levels will be compared to the most stringent ADEC risk levels.

Flow from each vent well is individually controlled. Extraction will start from a single vent well and extraction from additional vent wells will be added one at a time while emissions are being monitored. Startup flow rates will be 1/3rd of the design flow rate until safe emission rates are established. Flow rates will be adjusted until the design target extraction rate is reached (5.88 pounds of TCE per day). The extraction rate will be slowed, if necessary, to maintain safe emission levels. Emissions will be monitored daily until they are stable and decreasing, then weekly during operating season.

Terry Webb (Khotol Services) asked if air monitoring results will be posted somewhere. Bruce explained that the monitoring data is first validated and reviewed, and then provided to ADEC to review. Eventually the monitoring reports are made public on the Administrative Record. Bruce discussed that monthly calls with the City could be scheduled to release the information sooner than annual reports. Nolan Aloysius mentioned that the City and the Air Force were planning monthly conference calls in the interim to discuss progress. For example, the times when the systems are running, what contractor staff are on site, and any monthly field monitoring results. Nolan said it was a good idea to open up that line of communication. Bruce said that the City

was taking a role to ensure that the community would be safe and that there would be open communication between the Air Force, ADEC and the City.

Bruce then described the treatment of soil lightly contaminated with TCE by tilling (aerating) the soil with a windrow tiller at the Missile Storage Yard. About 90 cubic yards were treated in 2018. The soil was treated to levels that allowed for treatment of residual petroleum hydrocarbons at the Galena landfarm. There is another 50 to 60 cubic yards stockpiled at Million Gallon Hill that Parsons would like to treat in 2019. Tim Bodony (RAB Co-Chair) asked how long it takes to treat the soil and Bruce replied 4 to 5 days. Since the goal is only to volatize the TCE it can be frequently turned for several days to remove the TCE. Air monitoring is conducted to make sure no workers are exposed to any contamination. The TCE concentrations in soil at this site are very low (below ADEC soil cleanup levels for human health exposure).

Bruce then described the other activities that will occur in 2019 and 2020, including operating remedies, preparing close out reports (as appropriate), and operating the Galena landfarm. The landfarm was expanded in 2018 and Bruce thought there would be treated, clean soil available for the City to use as landfill cover in 2019. The first Five-Year Review is also being prepared in 2019. Bruce also described the avenues of communication available between the community and the Air Force. Semi-annual RAB meetings in April and October will continue.

Closing Remarks

Sam Myers (ADOT) described how 2018 was a challenging year due to the ADOT runway construction project, and the project was successful. Sam did not see any ADOT activities that would close roads or impact cleanup operations in 2019. Sam said that 2019 would be a quiet summer without any ADOT construction activities.

Eric Breitenberger (ADEC) spoke to the issue of community concern over the SS006 SVE system. He thanked Mayor Aloysius for meeting with the Air Force, their contractors and ADEC to discuss the City's concerns. Eric assured the Mayor that ADEC would continue to participate to ensure the City's concerns are addressed.

Christiana Hewitt (Air Force) stated that any comments submitted to the ADEC or Air Force would come to her or her leadership to address. She supports the monthly teleconference calls with the City so the community will be comfortable with the cleanup work being performed.

Tim Bodony asked when the next remediation contract would be put out to bid. Christiana replied that the Air Force does not have a time scheduled yet. There are new contracting staff and they are still collecting data. They hope to have bid packages out later this summer. Their goal is to have the contract awarded by next summer (2020) so there is overlap with the current contract. Donna Kozak (BAH) mentioned the Air Force would like to have site visits for prospective bidders this summer while the weather was nice.

Nolan Aloysius (City Mayor) thanked the Air Force for taking the time to explain the remedies being implemented and how they work and are monitored. He was satisfied that all the City's questions had been answered regarding the SS006 SVE system. Nolan also asked when the deadline for other comments was for the Site DP023 Proposed Plan. Christiana responded that the deadline was April 17th.

Tim Bodony (RAB Co-Chair) reiterated that the TCE soil vapor extraction is a hot button topic for the community. He understands that the Air Force will perform real time monitoring during startup along with the 21-day sampling with adsorbents, but that the 21-day laboratory results come back weeks later. The ability to shut off the SVE system (shut off valves) was a main concern, that there would be someone there to monitor the system startup. He did not want to

just see a switch flipped on and then the system left unattended. He thought that the first month of intense monitoring alleviates a lot of concern that folks had.

Tim asked if the SS006 TCE groundwater plume was the worse at Galena, and if it was worse than the plume south of the runway (Site SS015). Bruce replied that the size of the TCE groundwater plumes for both sites were equivalent, but that the source area for SS006 was larger and had higher concentrations in soil. The former bioreactor at Site SS015 also acted to reduce the source area concentrations there. Site SS006 has a higher level of community concern because of its location within the Triangle area.

Tim said that the concern came from folks getting a sense about the toxicity of TCE. That it is scary when you look at the raw data, but when taken in context, that the Air Force has a good plan to manage the emissions. Bruce stated that all SVE systems at Galena including those with benzene are started very carefully to make sure there is no exposure, and that extra caution will be exercised with Site SS006 due to community concerns. The Air Force and their contractors want to be as transparent as possible and appreciate the input from the RAB and the community.

Bruce closed the meeting by thanking the Galena community for attending and contributing to the meeting.

Attachments:

1. RAB Meeting Agenda
2. Presentation: Performance Based Remediation at Former Galena FOL, Alaska