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NAS SOUTH WEYMOUTH
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MINUTES AND AGENDA FOR THE RESTORATION ADVISORY BOARD MEETING HELD ON
9 JANUARY 2014 FORMER NAS SOUTH WEYMOUTH MA
01/09/2014
RESOLUTION CONSULTANTS



Former Naval Air Station South Weymouth, MA Restoration Advisory Board (RAB) Meeting Minutes January 9, 2014

1. INTRODUCTIONS/APPROVAL OF PRIOR MEETINGS MINUTES

John Goodrich, RAB facilitator from the Office of Public Collaboration, opened the meeting at approximately 7:00 PM. He requested that all attendees, including RAB members, regulatory agencies, and audience members, sign-in. He noted that handouts and the sign-in sheet were available on the table at the front of the room. The sign-in sheet for the meeting is provided as Attachment A. Before the start of official business, J. Goodrich asked if everyone received a copy of the September 12th RAB Meeting Minutes (mailed November 5th). Mary Parsons (RAB member) did not receive a copy. Steve Parker (Tetra Tech) offered to provide a new copy.

J. Goodrich reviewed the guidelines for the meeting and reminded the attendees that the focus of the meeting is cleanup issues. The presentation for this meeting focused on the Rubble Disposal Area (RDA) Landfill Gas Mitigation System (LGMS), presented by Brian Corbett and Richard Claydon (Tetra Tech). Time for questions and discussion was set aside following the presentation. Any issues and/or comments not related to base cleanup will be noted and referred to the appropriate agency or organization. Dave Barney (RAB Co-Chair) introduced Michelle Snyder as the Project Manager from Resolution Consultants, the new contractor coordinating and overseeing the Building 82 pilot injections and other activities at the Former Naval Air Station (NAS) South Weymouth.

2. PRESENTATIONS

RDA LGMS

B. Corbett introduced himself as a Tetra Tech Project Manager and explained that the purpose of the RDA LGMS is to address elevated concentrations of methane in the vicinity of the RDA Landfill. The presentation was broken into three sections. The first section discussed the objectives of the LGMS project and how the project was implemented in the field. The second section discussed how unknown site conditions encountered during field activities, dictated certain deviations to occur from the work plan. The third section provided a summary of the gas monitoring conducted prior to and following installation of the LGMS and the next steps.

The objective of the LGMS project was to mitigate the lateral migration of gas in the vicinity of the RDA. The source of the methane gas is not currently known; and could either be originating from off-site sources or from the RDA. Regardless of the source, the intent is to provide a preferential pathway to migrating gas. Since the source of the gas was unknown, the LGMS project was designed to mitigate gas originating from both the RDA and also from sources outside the RDA.

August 8th was the first day of field activities; hand test pits were dug in an attempt to locate the Gas Management Layer (GML). The LGMS was designed to vent to the GML, an existing 6-inch layer of crushed stone that was part of the landfill design. The GML could not be located with the hand test pit digging and heavy equipment was brought in to probe for the GML. The GML location work was conducted in late October. Surveying was conducted once the GML was located to provide a new baseline for the LGMS design and layout. Once located, pre-fabricated vertical drains (PVDs) were installed (October 28th-

November 5th) and site restoration (November 4th-19th) was conducted. The PVDs are constructed of filter fabric around a plastic core that wick the gas from the subsurface to the GML.

The original plan was to create a border around the area of highest gas (methane) concentration as identified in the gas migration study conducted by Tetra Tech. The highest concentrations of methane were previously detected in monitoring points GP-1 and GP-2. The intent was to create a trench that would be backfilled with gravel to allow for greater ventilation. An impermeable barrier would then be installed to prevent infiltration into the landfill cap. This plan had several constructability issues. First, the Parkway was being constructed within 2' of the projected location of the trench. Second, evidence suggested the presence of many sub-surface boulders. Third, the physical dimensions of the trench were impractical. Fourth, the design did not allow for venting on both sides.

These trench design considerations led to adopting the PVD design. The PVDs were installed from just below the sub-surface to the water table every 1.5 feet apart for a total distance of approximately 900 feet. The design allows for venting from both sides, and the installed filter fabric reduced the risk of silting. An additional advantage to the design was that all gases are managed in the GML and vented according to the design of the RDA cap towards the existing gas vent system. Furthermore, the PVDs were vibrated into the ground, which eliminated the construction issues related to the proximity of the new road and the sub-surface boulders.

A series of diagrams of the PVDs and GML system were shown to conceptualize how the implemented design captures gas and then vents the gas to the GML. There is a drainage swale on the eastern side of the landfill. In this area, the 6-inch layer of crushed stone (GML) daylighted. Once the PVDs were installed, the cap was reconstructed to follow the original construction design of the cap.

Richard Claydon (Tetra Tech) explained how pressure transducers were also incorporated as part of the design to indicate pressure differential between subsurface and the GML to evaluate that the PVDs were capable of transporting gas. Each pressure transducer was normalized against the barometric pressure.

The site management procedures for the mobilization were reviewed. The cap was cleared before major excavation activities were undertaken and silt fences were put in place to avoid sediment loss and control erosion. Pictures show the stratigraphy observed in the test pits. B. Corbett and R. Claydon explained the layering. The GML is the 6-inch stone layer which is overlain by the geo-membrane. There is a 2.5-foot layer of clay over the geomembrane, followed by a 6-inch layer of top soil. The clay acts as the cap which prevents gas from migrating up and out of the landfill. Instead, gas migrates through the GML and into the existing gas vents. Pictures showed polyethylene sheeting being used to cover the excavated clay cap. R. Claydon explained that the plastic sheeting was not to prevent leaching or off-gassing of contaminants, but rather to keep the moisture content of the clay as close to its original condition as possible. When the clay cap was replaced, it was compacted in 8-inch lifts to return it to its original low permeability.

The PVD installation process was also explained. First, a series of pre-punches created 8-inch diameter holes (to clear the path through potential boulders or other obstructions), later the PVD was driven into the pre-punched hole with a hollow stem punch, and as this punch was extracted, the PVD was left in place, set within the hole. B. Corbett showed a video of the pre-punch process while R. Claydon explained the PVD installation process. The GML was difficult to follow in some areas and required 90-degree turns. Some sections of the PVD line repeatedly hit obstructions and required 90 degree step outs. Each step-out required 'forensic' trenches to be dug to find the GML in the new step-out location so the PVD could be placed in the correct location.

The site restoration process was explained. The PVDs were folded over into the existing GML and new filter fabric was set in place. The clay was then backfilled and compacted in 8-inch lifts. Topsoil was re-placed, and then seed was spread on the exposed soil. Finally, biodegradable matting was placed over the seed.

Deviations from the work plan were discussed; the PVD centerline was shifted slightly due to the actual location of the GML; sub-surface obstructions increased the duration of the PVD installation; and the installation of a new gas probe was deemed unnecessary based on the layout.

The final cross-section depicting the PVD centerline in cross-section view was reviewed. It also depicted the locations where PVD did not reach the desired depth due to sub-surface obstructions. All other locations reached the maximum design depth (low water table). Another deviation from the work plan was that some of the PVD holes were purposely installed deeper than required in order to have the PVD wick catch and remain in the hole while the sleeve was removed. The depth of each PVD installed was recorded

The gas monitoring process used for health and safety was explained. A landfill gas meter was used to monitor breathing zones. A four-gas meter was used to measure methane, oxygen, carbon dioxide, and hydrogen sulfide (common landfill gases). Gas concentrations in the gas probe monitoring points did not vary significantly during construction. After the cap was re-installed, a round of sampling was conducted and all levels were below the lower explosive limit (LEL). The first round of monthly monitoring indicated that pressure transducers measured elevated methane (one location) and higher air pressure in the drains than in ambient air, which should allow the system to operate as designed.

The completion report is being drafted and includes a description of field activities, deviations from the work plan, and the initial results from post-installation monitoring. The points will be monitored monthly for the next year to evaluate if the system is operating successfully.

3. UPDATES

D. Barney reviewed the updates for Installation Restoration Program (IRP) sites, the Environmental Baseline Study (EBS) sites, and FOSTs:

Building 82

The Building 82 Pilot Study began in December 2013 with the installation of approximately 30 injection and monitoring wells. Well installations will continue as long as weather conditions do not make it unsafe to continue work. These wells are part of the pilot scale injection test that will be conducted in the spring. Results from the pilot study will be presented in a report later this year and will evaluate the applicability of implementing the injections on a larger scale.

Building 81

The Building 81 Draft ROD has been submitted to the regulatory agencies. Some comments on the Proposed Plan were provided by the developer. Once the ROD is approved, (late February/March) Remedial Design Work Plan preparation will begin.

Mary Parsons asked if the developer had any further comments regarding the work at Building 81 and the Draft ROD submission. D. Barney commented that the developer had some comments on the Proposed Plan and that they would be addressed in a responsiveness summary provided in the ROD.

Solvent Release Area

The Solvent Release Area ROD has been finalized and work plans are in the process of being written. Baseline sampling was conducted the week before Christmas to provide an updated picture of current groundwater concentrations. The results will be used for the development of pilot study planning documents.

West Gate Landfill

The West Gate Landfill long term monitoring was conducted the week before Christmas. Results from this investigation are pending.

Sewer Treatment Plant

Work at the Sewage Treatment Plant (STP) is ramping up. Tetra Tech is evaluating results from the excavation to refine the conceptual site model. Mary Parsons asked for a review of the major problems and issues at the STP. D. Barney explained that not enough information was collected in the initial phases of the investigation. The additional work completed has created a new understanding of current contamination. What remains is a determination of what was historically released from the sewage effluent pipe and how far it migrated. Previous investigations did not look at the surrounding buildings and recent data indicates that these locations are problematic. Several additional soil delineations have been conducted by Tetra Tech to outline the problem areas.

Anne Hilbert (Weymouth RAB Member) asked a question regarding mold in home foundations. D. Barney was unaware of any mold issues in the area. The area in question is a wetland and is naturally wet. Most of the peat has been removed; however, the water cannot be removed.

The STP is a potential topic of discussion for the next RAB meeting scheduled for the 2nd Thursday in April.

Fire Fighting Training Area (FFTA)

The Navy and the regulatory agencies are currently working out the details for the long term monitoring program at the FFTA and Hangar 1. Monitoring wells that were destroyed along the parkway due to construction are being replaced with new wells. The well replacement work will start in the coming weeks. Once the wells are replaced, groundwater samples will be collected from the Hangar 1 and FFTA monitoring wells.

Industrial Operations Area

Plans for the soil removal action in the Industrial Operations Area are being finalized. Actual soil removal will begin in the fall. J. Goodrich asked about the timing of a RAB discussion related to this matter. D. Barney will provide a presentation or a status update at the next RAB meeting.

FOST

There is no current FOST action aside from the Fire Training Area FOST Addendum that is being finalized to complete the transfer of that property. A portion of the property was held back due to the presence of PFCs.

FOST 6A: Pending resolution of grant of environmental restriction (GERE).

FOST 55C: wetland evaluation and wetland species monitoring is continuing.

Other Site Updates

A transformer that had been vandalized at the former wooden hangar. Some dielectric fluid appeared to have leaked out of the transformer and is being addressed under the Massachusetts Contingency Plan (MCP) by the developer with MassDEP oversight.

The second 5-year Review for the Rubble Disposal Area is due in June. An update of the status will be provided during the April RAB meeting.

James Cunningham (Weymouth RAB Member) asked about the next RAB meeting date and location. D. Barney stated that the meeting would be on April 10th. The location has yet to be determined, but will be included on the agenda.

4. ACTION ITEMS

Action Items

- The next RAB Meeting is scheduled for April 10th. Topics for the next meeting may include updates on the Sewage Treatment Plant and the Industrial Operations Area in addition to fieldwork status updates at Building 82 and the SRA. M. Snyder and D. Barney will prepare the agenda.
- M. Parsons did not receive a copy of the September 12th RAB Meeting Minutes. S. Parker will ensure that a copy is provided.