

**U.S. Army Corps of Engineers – New England District
Cold Regions Research and Engineering Laboratory (CRREL)
Restoration Advisory Board**

Minutes of Meeting #6 (Approved)

**Wednesday, September 10, 2014, 4:00 to 6:00 pm
Richmond Middle School (RMS) Library**

Attending: Tim McNamara, Dartmouth College, Community Co-Chair
Darrell Moore, USACE-NAE, Co-Chair
Katherine Connolly, Town of Hanover
Kristine McDevitt, Citizen Volunteer
Jonathan Brush, SAU 70
Steve Gaughan, Citizen Volunteer, CRREL employee
Ken Richards, NHDES
Rod Rustad, Amec
Scott Calkin, Amec
David Van Wie, Amec
Larry Cain, USACE-NAE
Bryan Armbrust, ERDC-CRREL

1. Welcome and introductions

Meeting opened at 4:05 by Co-chair Tim McNamara

2. Adopt minutes of Meeting #5

Motion by Mr. Brush to adopt minutes as distributed. Seconded by Ms. McDevitt. 4 in favor, none against, 2 abstentions. Minutes adopted.

3. Comments, observations and questions since the last meeting

Mr. McNamara noted that he had heard nothing specific about the TCE issue or investigation from the public over the summer. Mr. Brush found the June tour very informative regarding scale and layout, compared to aerial photos. Ms. McDevitt noted that the June 4 neighborhood meeting was well attended, with quite a few people from Kendall. The presentation by Larry Danyluk (ERDC-CRREL) was clear and well received with few questions. She noted that people are looking forward to the Open House for more specific information.

Mr. Gaughan noted that the employees at CRREL had been provided a communication from CRREL management that portions of the Main Lab building are periodically experiencing elevated levels of TCE in the indoor air, with variable readings that appear to be weather dependent. He noted that the original communication from CRREL was confusing to some, but the follow-up information has helped people understand the situation better. He noted that his colleagues were glad to get timely communication about the issue. USACE-NAE has recommended trying to reduce duration of exposure during times of higher readings; CRREL is giving people the option to work remotely or be relocated other space. A 21 day risk period for women of child-bearing age was a concern, but the

risk numbers are now lower. Mr. Rustad noted that monitoring is continuing with the Hapsite unit, and the area near the 2nd floor conference room (Gow) is being investigated for ways to reduce the TCE concentrations in the air.

Question: Are the elevated levels occurring despite the mitigation in basement sub-slab?

Answer: Yes, the higher measurements occurred while mitigation methods, including the sub-slab system and portable air units, are being used. Intermittent higher readings occur under certain weather conditions, and sources and pathways (e.g. roof drains, HVAC, etc) are being evaluated.

Question: Will it be worse when the ground is frozen?

Answer: That is not expected. The particular conditions seem to be worse in the summer.

4. Update on ongoing investigations and recent sampling
5. CRREL news and activities

Items 4 & 5 were combined for discussion. Mr. Rustad, Mr. Calkin and Mr. Moore spoke from PowerPoint slides (attached).

Remedial Investigation work: Discussion of the 5 bedrock wells that were installed this summer. They found approximately 130 feet of overburden to the top of bedrock and 100 feet drilled into bedrock. Sampling found no TCE in bedrock itself. One well near the abandoned "ice well" had a detection of TCE in groundwater. Rock matrix is very solid with few fractures. This was unexpected good news based on previous reports. Bedrock is "discretely fractured" but in few places. Drilling did not find fractures nearer the fault, which is outside of CRREL property.

USACE is still working with NHDES to investigate potential pathways for past reported contamination in three Vermont wells. USACE is planning to try to find the three wells (if they still exist), redevelop and sample them this fall, if possible. There has not yet been formal contact with VTDEC or town, but they will be contacted. Right of Entry (ROE) agreements will need to be negotiated.

Mr. Calkin and Mr. Rustad reported also on the new overburden wells. Sampling results for groundwater in the esker were "non-detect". There have been no surprises in this part of the investigation which is seeking to verify and improve the Site Conceptual Model. Primary source areas appear to be AOC 2 and 9.

Sampling completed in Richmond Middle School in August was the 4th round of full sampling. Results are consistent with previous sampling events: no concerns. The report will be available to the School District in about 4 weeks. The plan is to change to sampling twice per year instead of quarterly. Ms. Connolly asked about availability of the data to the public. USACE said the report will be released to the school district which is then responsible for any reporting of data to the public.

Sampling Event 10 (indoor air) is underway today at CRREL. Over 80 Summa Canisters are deployed in the Main Lab, and will be followed by additional sampling in other buildings.

Mitigation and Hapsite monitoring continue as well. USACE-NAE bought a second Hapsite unit. Over 250 portable air purifiers are deployed. A second evaluation of the air purifiers and testing of the carbon filters is planned.

Upcoming this fall: Soil Vapor Extraction pilot test will evaluate the porosity of the soil and other characteristics in the northern portion of the site. There will be drill rigs operating. The goal is to determine if remediation to remove TCE from the soil and unsaturated layers is feasible.

6. Draft plan for Open House

Mr. Van Wie distributed the draft outline and plan for the Open House. The date is set for 7 to 9 pm, Wednesday, October 22, confirmed by Mr. Brush. We will plan a 20 minute summary/wrap up at the end of the open house with each station reporting briefly on key questions/concerns. In the sampling & results area, we will have a second table focused on sampling results in the Middle School.

Mr. Van Wie will ask the Town Manager for names of officials to invite individually. RAB members will be sure that there are representatives in the RAB booth to encourage participation and/or attendance at meetings. We will also reach out to the press for upfront coverage and event coverage.

7. Website updates

8. Community Relations Plan updates

Items 7 & 8 were combined, with a focus on the website as the main vehicle for communication with the public. The website has been moved to a new URL managed by USACE-New England District. We reviewed the current layout and content. The history, site summary and investigation overview need to be expanded. We will add presentations and the geological images.

9. Next meeting: Agenda, Date and Location:

Open House is Wednesday, October 22 in the RMS Gym, 7 to 9 pm. Next regular RAB meeting will be Wednesday, November 19, 4 to 6 pm; agenda TBD.

10. Comments & questions from the public - None attending

11. Adjourned at 5:50 pm.