Public Notice of Application to Amend Hazardous Waste Permit
Public Information Meeting

Hazardous Waste Management Unit 5 (HWMU 5)
New River Competitiveness Center Radford VA
January 22 2009 7 pm

Draft Meeting Notes

Attendees:

US Army
Jim McKenna — Radford AAP

ATK
Jeremy Flint — ATK Radford AAP

ARCADIS
Tim Llewellyn — ARCADIS

Public
Devawn Oberlender

Purpose of Meeting: The application to amend the hazardous waste permit at HWMU 5 (RAAP 42) was presented to the public. The public were invited to provide comments to the VADEQ, and the details of how to provide those comments was also provided.

The meeting started at approximately 7:00 pm and concluded at approximately 8:15 pm. One member of the public attended and was afforded the opportunity to hear the presentation and work with the Army, ATK, and Arcadis on specific questions and comments.

Summary of Presentation

Mr Llewellyn provided an overview of the presentation, the topics to be discussed, and an overview of the public notice process. Background of HWMU 5 was presented including location, operating history, and environmental investigations conducted. The results of those investigations were then presented including the concentrations of chemicals in soils and groundwater beneath HWMU 5. In summary, Mr Llewellyn noted that a relatively small plume of TCE about 160 feet in length was present to the north and east of the HWMU with current maximum concentrations on the order of 11 parts per billion (relative to a drinking water standard of 5 parts per billion). The proposed corrective action was then presented. Due to the limited extent and low concentrations of TCE, the Army has proposed to the VADEQ that the corrective action be monitored natural

attenuation (MNA). The details of the monitoring network were provided. In conclusion, Mr Llewellyn provided the contact information at the VADEQ to whom comments should be addressed, which will be accepted until 15 February 2009. Mr Llewellyn then invited questions or comments from the audience.

Summary of Questions and Discussions

All questions were from Devawn Oberlender

1. Ms Oberlender expressed concern that certain people that she was the only person in attendance. Mr. McKenna noted that notice of the meeting had been posted in the Roanoke Times and the required mailings had been sent. In addition the public notice was sent to the Restoration Advisory Board distribution and to the local communities for posting on their respective websites if they choose. Thus the Army had not only met but went beyond the obligations of the required public notice process to enhance community involvement for this action.
2. Ms Oberlender asked if in future library copies could have graphics on 8.5 x 11 paper to facilitate copying. Mr. Llewellyn agreed to consider this in future but noted that it may make the figures hard to read.
3. Ms Oberlender noted that Matt Stepien was not in attendance and asked who his counter-part was at EPA. Mr. Flint noted that the Corrective Action at HWMU 5 was a State led program and that there was no counter-part at EPA.
4. Ms Oberlender asked what breakdown products would be expected from TCE. Mr. Llewellyn explained that while breakdown products have not been seen at HWMU 5, they would be DCE, vinyl chloride, ethane, and ultimately carbon dioxide and water.
5. Ms Oberlender asked if tetrachloroethene (PCE) had been detected. It was not. She later noted that the 2001 DERP report to Congress indicated that PCE was an installation chemical concern at Radford. Mr. McKenna and Mr. Flint were unaware of an installation wide issue with PCE at the plant and indicated they would look into the referenced report, which was possibly erroneous. Follow up with USAEC on Friday January 23, 2009 indicates that PCE is not found to be an installation chemical of concern in their database for reporting so this is possibly an error. In any case note PCE is included in an analyte suite when a site is screened/investigated.
6. Ms Oberlender asked if perchlorates had been detected in the soils or water at HWMU 5. Mr. Llewellyn said that the perchlorates were not sampled during the ARCADIS 2008 field effort. Mr. Flint and Mr. McKenna did not recall perchlorates being detected prior to that effort but needed to confirm if they had been analyzed. Upon further review it appears that perchlorates were not sampled and analyzed as it is not required by the HWMU 5 permit.
7. Ms Oberlender noted that some articles linked perchlorates to thyroid cancer, and also noted a 1995 document that indicated cancer clusters (areas of increased reported cancer) had been reported in the Radford area at that time. In response Mr. McKenna recalled from the September 18, 2008 Restoration Advisory Board meeting that no causal link was or has been made to these types of issues and HWMU 5.

8. Ms Oberlender requested she be added to the Installation mailing list. Mr Flint and Mr. McKenna reiterated that she needed to contact Matt Stepien, DEQ as DEQ compiles this list.
9. Ms Oberlender asked that while the Army presentation indicated that three locations exceeded the drinking water standard for TCE the Corrective Action Plan only referenced one well was over the standard. Mr. Llewellyn clarified that the other two locations were not wells but were temporary points installed by a geoprobe. Those data were included in the Corrective Action Plan under Section 5.2.
10. Ms Oberlender asked what was meant by "overburden groundwater". Mr. Llewellyn explained that this was water in the alluvial material overlying the bedrock. A further conversation clarified that the water was flowing toward the northeast and the New River. However, it was re-iterated that wells downgradient had been sampled semi-annually for over 10 years and there is no indication that the TCE associated with HWMU 5 has travelled more than 160 feet from the HWMU.
11. Ms Oberlender asked where the TCE was going and how long would it take to disappear completely. Mr. Llewellyn explained that mechanisms such as biotransformation and mechanical dispersion played a role in attenuation of small plumes, and with the minimal amount of TCE in the subsurface at HWMU there simply wasn't enough mass to form a larger plume. Currently it is estimated that the TCE would dissipate below standards in approximately 12 years, but cautioned that the estimate would be updated each year in the annual monitoring reports and was subject to change as additional data was evaluated.
12. Ms Oberlender asked the location of the dip tanks and terra-cotta pipe that had been discussed in the September RAB meeting. Mr. McKenna and Mr. Flint noted that area was separate from HWMU 5 although they were in the vicinity of HWMU 5 and investigated at the same time. In any case the reported pipe and tank were not present when looked for during the investigations that were conducted in the summer of 2008. Mr. Flint noted that solvent use up in that area (Building 1041) had occurred in the past, but there had been no reports of use of TCE. Mr. Llewellyn noted that a separate report would be forthcoming on the results of the investigations at and around the Building 1041 (aka RAAP-047) early in 2009.
13. Ms Oberlender recommended the National Academy of Sciences "Assessing the Human Health Risks of TCE" to the Army, ATK, and ARCADIS.
14. Mssrs. Llewellyn, Flint and McKenna reminded Ms Oberlender that comments needed to be submitted to DEQ by 15 February 2009 and the meeting concluded.