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ST JULIENS CREEK
5090.3a

Staszak, Janna/VBO

From: Burchette.John@epamail.epa.gov
Sent: Tuesday, November 04, 2008 11:13 AM
To: walt.j.bell@navy.mil; Staszak, Janna/VBO; Jones, Adrienne/VBO; kmdoran@deq.virginia.gov; Henderson, Kimberly/VBO
Subject: EPA RPM and Hydro Comments on Site 21 FS
Attachments: Comments.doc

Hey Guys,

Attached are my comments and the EPA hydro comments. Linda has been pretty backed up, but I've spoke with her and reminded her multiple times so hopefully she will have comment prepared prior to our meeting. Thanks for the opportunity to comment on this document.

Regards,

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EPA Comments
Site 21 Feasibility Study
St. Juliens Creek Annex
Chesapeake, Virginia

EPA RPM Comments
EPA Comment 1: Alternative 3
Under Alternative 3, the opening paragraph states that, "Implementation of this remedial alternative will likely require more than one round of treatment, especially within the high concentration zone." However, when reviewing the description of the treatment in the high concentration zone the FS states on page 4-6, "One injection round of ZVI is assumed to be sufficient to reduce contaminant concentrations to less than 1,000 ug/l." These statements do not appear to be consistent with one another. Please provide evidence/research (supporting either a single or multiple injections) and revise theses statements to correspond with one another. Additionally, please consider how the number of injections will affect the cost.

EPA RPM Comment 2: 4.3.3. Dehalococcoides gene analysis to prevent complications with ERD
EPA suggests a gene analysis is done on the dehalococcoides at the site to determine if the current population has the Vinyl Chloride Reductase gene. This gene is necessary for the complete degradation of CVOC's. Not doing so may result in a population without the gene causing stall-out at Vinyl Chloride.

EPA RPM Comment 3: 4.3.3. Alternative 3
It had been discussed at various times that the Navy would not necessarily be comfortable drilling a significant number of points through the slabs of the Site 21 buildings. However, figures 4-3 and 4-4 both show a significant number of the injection points within the footprint of the buildings at the site. Please explain if installing these points is the approach the Navy is willing to take. If other remedial alternatives are being considered in these areas, please evaluate them in the FS.

EPA RPM Comment 4: 4.3.4. ISCO and ISCR in high concentration areas.
The FS states, "Once the concentrations of all COC's have been reduced to less than 1,000 ug/l for a sufficient period that it is apparent that rebound is not occurring" we will transition to the low-zone treatment approach. Please provide a more descriptive timeframe than a "sufficient period" and what would be done if rebound is found to be occurring or state this will be addressed in the RD.

EPA RPM Comment 5: Table 5-1 Action 1. Long-Term Effectiveness & Permanence.
Please revise the sentence "…with no treatment or monitoring, uncertain if/when". Additionally please revise the descriptions of alternative 1 and 2 to match more closely (i.e. alternative 1, "suggests limited reductive dechlorination of VOC's is occurring naturally". Alternative 2, "suggests reductive dechlorination of VOC's".) Since neither remedy is active, please add "limited" to the description of alternative 2.

EPA RPM Comment 6: Table 5-2 Reduction of Toxicity, Mobility, & Volume through Treatment. Neither the no action alternative, nor the MNA alternative, provides treatment. Please explain why they would not be ranked with the same value, or revise these values to match one another.

Editorial Comments

EPA Editorial Comment 1: Implementability
Under no action, please remove the word so.
Under ISCO final bullet, please remove the word so.

EPA Editorial Comment 2: Page 5-4 Full paragraph, final sentence.
Please revise the sentence "Alternative 1 is serves"

EPA Editorial Comment 3: Section 5.2.2 Compliance with ARARs
Please revise sentence that currently reads, "Alternatives 2, 3, and 3 are expected to comply with ARARs" to, "Alternatives 2, 3, and 4".

EPA Editorial Comment 4: Table A-3. Federal Executive Order 11900. Comments.
Please revise the comment to read, "A wetland is not present within Site 21".

EPA Editorial Comment 5: Table A-4. Groundwater Management Act. Comments.
Please revise sentence to 300,000 instead of 300,00.

EPA Editorial Comment 6: Table A-5. Format issues. Some of the wording is cut off.
Please fix borders.

EPA Hydro Comments

EPA Hydro Comment 1: Table 3-1. I believe RBCs should be used for the PRGs.

EPA Hydro Comment 2: 4.2 Screening of Remedial Technologies, p. 4-2
1. I am unclear how O&M costs can "screen out" a technology and how this fits in with the regular costs.
2. I do not disagree with the "carbon footprint" as noted here, but it should be clearly explained what is meant at the site by this term (electricity and/or energy costs, emissions, water usage, etc). Additionally- what is the carbon footprint required to make permanganate, etc? Where does it come from?
3. Please elaborate how P&T is "inconsistent with Navy policy". This statement seems inconsistent with EPA Guidance.

EPA Hydro Comment 3: Alternative 2- MNA- p. 4-4
Sampling frequency, as noted in the third paragraph, should be quarterly for at least 2 years.

EPA Hydro Comment 4: Alternative 3- ISCR and ERD

p. 4-5, paragraph: I am unclear how the funding determines the sequencing/schedule. Please elaborate.