

From: James Noggle *ET*
To: Donald K Croulet
Date: 11/07/2006 7:35:26 AM
Subject: RE: Tom Nicholson's questions

Dear Don,

The GSB would be preferred, since  *aj*⁶

Regards,

Jim

>>> "Croulet, Donald K" <dcroule@entergy.com> 11/07/2006 7:33 AM >>>
Jim,

Do you have a preference to be centrally located in the GSB or the NRC Resident's office area?

-----Original Message-----

From: James Noggle [mailto:JDN@nrc.gov]
Sent: Tuesday, November 07, 2006 7:16 AM
To: Croulet, Donald K; mbarvenik@qza.com
Subject: Tom Nicholson's questions

Dear Matt and Don,

After briefing Tom on the preliminary results of the recovery well test, he had the following questions, that may be useful in guiding your presentation next week (11/16).

Jim Noggle:

Thanks for all of the new information. After reviewing your project status narrative and your update (below), I have the following items for you to consider for including in your agenda (I included them as questions so to explore their data, analyses, understanding and plans):

1. Please show a detailed map of the recovery well (RW-1) and the surrounding monitoring wells, and discuss the study's objectives, assumptions, procedures and analysis methods:
 - a. What were the pumping rate(s) and time period (72 hours?), and frequency of observations in which monitoring wells?
 - b. Did any of these observation wells have waterloo packer units? Which fracture intervals responded and which did not?
 - c. What contaminant sampling was performed in which wells, and was the hydrologic condition (e.g., potentiometric level) at the time of sampling?
 - d. Which drawdown versus time and distance analyses methods were selected, and what assumptions were made in these analyses as to flow and transport conditions and geometries?

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2. What are GZA's preliminary observations and insights from its recovery test analyses and which fracture zones appear to be most active?
3. What information was obtained on the H-3 and Sr-90 plumes' behavior, prior to, during and following the recovery well test in the recovery well and observation wells?
3. What evidence is there that the "fuel transfer canal" could be a possible leak source?
4. How will the "eddy current testing" be conducted to detect cracks? What are the visualization indicators that will be used to help direct the eddy current testing? What are the limitations of this non-destructive test? What corrective actions are feasible based on the test results?
5. What further analyses need to be performed to determine if recovery well (RW-1) or other wells can serve as detection wells or contaminant capture zones?
6. What are the objectives, assumptions, procedures and analysis methods for the tracer test(s)? Which wells are to be sampled, and what assumptions are to be evaluated as to the location and behavior of active fracture zones which are to be sampled via the waterloo packer units? How much certainty is GZA pursuing in identifying the radionuclide sources and release mechanisms?
7. What are the perceived transport pathways for the Sr-90 and H-3 contaminant plumes emanating from Unit 1 and Unit 2 spent fuel pools? Which anthropogenic features (e.g., pipe trench) control these pathways, and what the hydrogeologic unit interfaces with these features?
8. Which performance monitoring wells and what performance indicators are anticipated to be included in the long-term monitoring plan? What would be the frequency of monitoring and how can this data be useful in calculating doses for current and future radionuclide releases (both monitored and unanticipated, abnormal releases)?
9. Which monitoring wells and performance indicator data are envisioned to be useful for determining the need for, and selection of methods (e.g., monitored natural attenuation; pump, store, sample, monitor and release) for, remediation?
10. Have hydrogeologic observations and sampling in the fracture zones at the quarry face ruled out H-3 and Sr-90 migration to the south (parallel to the river bank), and solutioning in the Inwood Marble fractures?

Regards,

Jim