

NRC Request Q-7

A description of the unusual occurrence involving the spread of contamination in the trenches is needed for staff to determine if the continuing characterization or final status survey plan will be adequate to meet requirements in 10 CFR 20.1501. Specifically, confirm that subsurface soil sampling below the trenches will be included in either the continuing characterization or final status survey plan for soils below basement foundations, or provide justification or support that ensures a release did not occur to the natural environment below the trenches.

Action

FCS will not provide further description on the event. Instead, NRC understands that FCS will perform sampling of sediments below slab (NRC focus is on trenches at 989 ft elevation). Since no changes were made in LTP Rev 2 on continuing characterization for the trenches, (i) clarification will be provided in a response to this question that sediments below the slab can be reached by angled geoprobes or directly through the slabs, and (ii) previous LTP statements on not sampling due to groundwater influx would be reevaluated. Specifically, FCS indicated that they are evaluating alternative methods to sample sediments below slabs of trench areas, and that they will consider hydrology (water table elevation and river stage) in scheduling the sampling event and for the sampling method. **When and how the information will be provided to NRC was not discussed during the first or second audit meeting, but NRC expects FCS to provide a plan for sampling these areas and a commitment to implement the plan in a response to this question, and that that response would be the basis for a license condition that would accompany any approval of this license amendment request.**

FCS Response

FCS will collect soil samples below the slabs of the Auxiliary Building (AB) and Containment Building (CB) for continuing characterization as required by Chapters 2 and 5 of the LTP. Timing of the sample collection has yet to be determined and will be scheduled as decommissioning activities allow access.

FCS intends to utilize one or more of the following technologies:

- Diagonal boring
- Drilling/boring through slab
- Hydraulic diverter

Diagonal Boring

Diagonal boring may be performed after decommissioning activities and backfill of the AB and CB have been completed. A drilling rig would be offset from the structure in order to obtain a sufficient angle to obtain samples from beneath areas of interest.

Drilling/Boring Through Slabs

Drilling through the slabs of the AB and the CB may be performed after decommissioning activities and backfill of the AB and CB have been completed. Areas of interest would be identified and located by a combination of physical measurements and GPS coordinates to ensure that sediment samples are collected for the correct location after backfill.

Hydraulic Diverter

Hydraulic diverters may be secured to the floors in the AB and CB prior to backfill. Hydraulic diverters would allow the team to control groundwater in-leakage while collecting sediment samples from beneath the structures. An added benefit of utilizing hydraulic converters is that it would facilitate the collection of

water samples directly below the structures as opposed to monitoring wells in the groundwater monitoring network.