Kauffman, Laurie

From: Siegrist, Hank [HSiegrist@cabreraservices.com]
Sent: Tuesday, July 17, 2012 4:35 PM
To: Kauffman, Laurie
Cc: Uruskyj, John (GE, Corporate); Flowers, Robert
Subject: RE: Request for Additional Information re: Decommissioning Plan Addendum, dated July 5, 2012
Attachments: Areas Applicable to UNC DCGL Amendment Request.docx

Laurie,

Please see attached. This is as per our previous verbal discussion earlier today.

Hank

From: Kauffman, Laurie [mailto:Laurie.Kauffman@nrc.gov]
Sent: Tuesday, July 17, 2012 12:20 PM
To: Siegrist, Hank
Subject: Request for Additional Information re: Decommissioning Plan Addendum, dated July 5, 2012

Hank:

Per our conversation, please provide written clarification regarding the areas of the site to which the DCGL will apply and the reasons.

If you could provide today, I'd appreciate it.

Thank you,

Laurie A. Kauffman
Health Physicist,
USNRC – Region I
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713
610-337-5323 (Office)
484-868-0987 (NRC Cell)
Laurie.Kauffman@nrc.gov

Areas Applicable to UNC DCGL Amendment Request (July 5, 2012)

The following information is derived from the "Details" section of the Decommissioning Plan Addendum for the Former United Nuclear Corporation Manufacturing Facility, New Haven CT submittal of July 5, 2012. This is in response to an email request for written clarification regarding the areas of the site to which the DCGL will apply and the reasons.

The DCGL was developed from the original 2008 radiation dose assessment and RESRAD input parameters utilized in the report "Derived Concentration Guideline Levels for Decommissioning the former UNC Manufacturing Facility", Report No. 2002020/G-3972, Revision 1. In that report, the associated RESRAD input parameters for the contaminated zone includes an affected area of 1,000 square meters with a thickness 2 meters deep. This area represents the footprint of three planned excavations. These include the Decon Pit, the former X-ray Read Room, and the storm water line located outside the building. While the three areas are not contiguous, a conservative estimate of the three areas was to sum these together.

The outside storm water line and associated soils have been removed and the latest survey data shows only routine background uranium levels. However, there are emergent areas identified inside the building in the south trench, north trench, and laterals that in certain areas, show levels of enriched uranium activity well above the 30 pCi/g total uranium DCGL provided for by the existing Decommissioning Plan (DP). These areas were not previously identified as areas where uranium contamination was expected and were not specifically called out by the 1998 DP. Removal of soil material above the current 30 pCi/g DCGL from these areas is difficult at best and may require removal of structural elements of the building to gain access and remediation capability. This DCGL addendum was submitted to address this specific issue.

The area presented by the Decon Pit, the former X-ray Read Room, the South Trench, North Trench, and associated lateral tunnels beneath the concrete floor of Building 6H/3H present an area of less than 1,000 square meters and less than 2 meters thickness. The RESRAD DCGL was developed to address these new areas as well as previously identified areas within the building. The original 2008 RESRAD input parameters are not exceeded by the areas presented by these new features. Finally, the effects of area on the calculated DCGL were reviewed and found to be relatively insensitive. The DCGL was found to vary by only a few percent even with a hypothetically increased contaminated area of 2,000 square meters. The DCGL values are appropriately determined for the addition of these new areas.