

June 16, 2008

Ms. Elizabeth Southerland, Director
Division of Assessment and Remediation
Office of Superfund Remediation
and Technology Innovation
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code: 5204P
Washington, DC 20460

SUBJECT: NOTIFICATION OF THE DECOMMISSIONING OF THE ABB INCORPORATED
SITE IN WINDSOR, CONNECTICUT

Dear Ms. Southerland:

This letter notifies you of the decommissioning oversight actions that the U.S. Nuclear Regulatory Commission (NRC) has taken and intends to take, for the ABB Incorporated (ABB) site in Windsor, Connecticut.

On October 9, 2002, the NRC and the U.S. Environmental Protection Agency (EPA) entered into a Memorandum of Understanding (MOU) on "Consultation and Finality on Decommissioning and Decontamination of Contaminated Sites." Under the MOU, EPA agreed to continue its Comprehensive Environmental Response, Compensation, and Liability Act deferral policy of not listing sites on the National Priorities List that are subject to NRC's licensing authority. The MOU provides that, unless an NRC-licensed site exceeds any of three trigger criteria contained in the MOU, EPA agrees to a policy of deferral to NRC decision-making on decommissioning without the need for consultation.

For sites that trigger the criteria in the MOU, NRC will consult with EPA at two points in the decommissioning process: (1) prior to NRC approval of the license termination plan or decommissioning plan (DP), which NRC terms Level 1 consultation; and (2) following completion of the Final Status Survey (FSS), which NRC terms Level 2 consultation.

We are sending this letter as our Level 1 consultation for the ABB site, because the licensee's proposed derived concentration guideline levels (DCGLs) for certain radionuclides in their revised DP for the site exceed the soil concentration values in Table 1 of the MOU for residential use.

The site, currently owned by ABB and located in Windsor, Connecticut, is a 613 acre, mostly wooded site located approximately eight miles north of Hartford. Between 1955 and 2000, licensed activities conducted at the site included the development, design and fabrication of civilian and naval nuclear reactor fuel and the servicing of nuclear plant components. Decommissioning of the ABB site is complicated by the fact that certain buildings and areas associated with the naval fuel program are being addressed by the U.S. Army Corps of

Engineers (USACE) as part of the Formally Utilized Sites Remediation Action Program (FUSRAP). In June 2004, the NRC approved DP (ML040300149) allowed site-specific DCGLs to be used for the entire site, including the FUSRAP areas. The EPA was not consulted at that time because the DP and subsequent NRC review revealed that no groundwater contamination above the EPA maximum contaminant levels (MCLs) existed, restricted release of the site was not contemplated, and the approved DCGLs were less than the MOU Table 1 industrial land use trigger values. All non-FUSRAP areas of the ABB site have been remediated and FSSs have been completed in accordance with the approved DP. On August 2, 2007, the USACE proposed to the NRC that ABB be allowed to perform remediation and decommissioning activities for the FUSRAP areas of the Windsor site under NRC oversight as a means to facilitate decommissioning and remaining cleanup of the site. The NRC agreed to this arrangement and a revised DP to address the remaining FUSRAP decommissioning activities at the site was submitted to the NRC on January 29, 2008 (ML080380259). The revised DP changed the reasonably anticipated land use for the entire site from industrial to industrial/residential. A Level 2 consultation is not deemed necessary for the non-FUSRAP areas of the site that have been remediated and are being considered for unrestricted release, since the FSS results are below the MOU Table 1 residential trigger values. However, for reasons stated previously, a Level 1 consultation is needed for the FUSRAP areas of the site.

The DCGLs, which the staff plans to approve, are provided in the enclosure. Four of the seven cleanup values exceed the MOU residential soil concentration levels (i.e., Cobalt-60, Uranium-234, Uranium-235, and Uranium-238). Before the NRC license is terminated, the dose to the average member of the critical group at the site will be in compliance with NRC's criteria in 10 CFR Part 20, Subpart E. Subpart E provides an all-pathways dose criteria of 0.25 millisieverts per year (25 millirem per year) to an average member of the critical group and a requirement that doses be as low as reasonably achievable (ALARA). The dose criteria in 10 CFR Part 20, Subpart E are fully protective of the public health and safety, and were the result of a comprehensive rulemaking, including an accompanying generic environmental impact statement. Individuals at a decommissioned site are expected to receive doses substantially below the constraint level because of the application of the ALARA principal, conservative dose modeling assumptions, and the nature of the cleanup process itself, which often reduces residual contamination levels significantly below the DCGLs. Additionally, the residual radioactivity at the site is expected to be much lower than the approved DCGL values because meeting the 25 millirem per year criterion must be demonstrated using an all pathways, sum of the fractions approach. The DCGLs in the DP represent the maximum levels for each radionuclide without considering the existence of other radionuclides. Thus, in applying the sum of the fractions requirement, the actual cleanup values will be reduced to ensure that the potential dose from all residual radioactivity at the site from all media is less than 25 millirem per year.

However, in view of the extent to which the proposed cleanup values exceed the MOU trigger levels, and based on NRC's decommissioning experience, a Level 2 consultation may be necessary because the levels of residual radioactivity remaining after remediation may still exceed the MOU trigger levels. If this is the case, NRC will consult with the EPA in accordance with the MOU.

Following your staff's review of Enclosure 1 and other relevant information, as specified in Section V.D.1 of the MOU, please send us your views on the ABB Windsor site within 90 days of receiving this notification.

E. Southerland

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Following site remediation activities, the site will submit a FSS. NRC staff will review information contained in the FSS and will compare the remaining residual radioactivity to the MOU trigger levels. If the FSS measurements exceed the MOU values, a consultation between the agencies will occur to identify and resolve any remaining issues. In the meantime, if you have any questions regarding this letter or the decommissioning activities at the Windsor Site, please contact Keith I. McConnell, Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate, at (301) 415-7295.

Sincerely,

/RA/

Larry W. Camper, Director
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: 030-03754; 070-01100
License No.: 06-00217-06; SNM-1067

Enclosure:
ABB Proposed Cleanup Values

cc: please see attached ABB Service List

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Date	06/09/08	06/16/08			

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ABB Proposed Cleanup Values (pCi/g)

Radionuclide	Cleanup Value	EPA MOU*
U-238+D	101***	74
U-235**	24***	20
U-234	432***	401
Th-232	1.1	5
Ra-226	0.7	5
Co-60	5	4
Total Uranium	314 mg/kg***	47 mg/kg

* Residential

** The EPA MOU value is listed for "U-235+D". For the Windsor site, U-235 daughters are not in equilibrium

*** The uranium cleanup value is specified as 557 pCi/g of total uranium. The cleanup values provided reflect a U-235 enrichment of 3.5%, which was the basis for the DCGLs.

Enclosure

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