



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 10, 2001

Docket No. 07000698

License No. SNM-770

A. Joseph Nardi
Supervisory Engineer
Westinghouse Electric Company, LLC
EHS Regulatory Affairs
P.O. Box 355
Pittsburgh, PA 15230-0355

SUBJECT: WESTINGHOUSE ELECTRIC COMPANY, LLC, REQUEST FOR ADDITIONAL INFORMATION CONCERNING REMEDIATION ACTIVITIES AT THE WESTINGHOUSE WALTZ MILL SITE, MADISON, PENNSYLVANIA

Dear Mr. Nardi:

On December 13, 2000, representatives from the Commonwealth of Pennsylvania, Department of Environmental Protection (PADEP), PADEP contractors, and NRC Region I toured the Waltz Mill site and met with Westinghouse Waltz Mill staff and their contractors involved in the Waltz Mill exterior remediation project. During this meeting and site tour, we discussed questions that relate to site remediation activities posed by PADEP and their contractors in a December 1, 2000 letter to Region I. Region I and NMSS staff also reviewed these questions. Based on our reviews of the PADEP questions and discussions during our December 13, 2000 meeting, we are requesting the following additional information based on the PADEP questions. We have included a copy of the December 1, 2000 PADEP letter for reference and have numbered our questions to correspond with the numbering in the PADEP letter.

1. As a result of corporate changes that have affected administration of the SNM-770 and TR-2 licenses, please summarize the financial assurance mechanisms and responsibilities to cover the costs for successfully completing planned remediation activities and any anticipated long-term monitoring activities.
2. Describe any site-specific changes made to any input parameters for RESRAD computer code runs (and your justification for making the changes) that support site specific DCGL calculations for soil remediation. In particular, identify any site-specific soil-leaching studies or literature searches that may have been used to modify the parameters for soil leach rate constants and soil-water distribution coefficients in the water-related pathways.
3. Please confirm our understanding that excavated soil in excess of the site-specific DCGLs will not be used to refill excavated areas. If our understanding is incorrect, you will need to provide suitable calculations to demonstrate that the areas will meet the annual radiation dose and the ALARA criteria in 10 CFR 20, Subpart E, Radiological Criteria for License Termination. Also, the letter report from your consultant, Earth Sciences Consultants, Inc. (Letter Report, Groundwater Dose Analysis, Waltz Mill Site, Madison, Pennsylvania) states that the groundwater models are based on the

assumption that potential sources of Sr-90 are removed during soil remediation. Please confirm that this assumption is compatible with backfill soils having concentrations with radionuclides at DCGLs.

4. The current groundwater pump and treat system has resulted in several measurable groundwater cones of depression; however, there is no verification of containment of the plume. Please provide verification of groundwater containment, such as through particle tracking analysis, as we discussed during our meeting.

Describe your plans to evaluate the effectiveness of your soil remediation efforts on groundwater concentrations.

In order to evaluate radiochemical data trends for your onsite monitoring wells, please provide radiochemical data obtained since 1999. If possible, please provide the most current map of the groundwater plume configuration, compared to plume configurations measured in the past. Also, please explain the rise in the Sr-90 concentration in well MW-5 during 1999 from 330 to 575 pCi/liter.

5. There is an extensive network of groundwater monitoring wells on the site; however, all the wells are relatively shallow in nature. Based on data in the 1994 characterization report (Soil and Groundwater Characterization, Waltz Mill Site, Madison, Pennsylvania, Volumes 1 - 5, August, 1994) there may be a downward hydraulic gradient within the bedrock aquifer and thus a potential for contaminated groundwater to migrate into deeper water-bearing zones within the bedrock. Because there are no deep monitoring wells, please evaluate the potential for deep groundwater contamination and its radiological impact. Please describe plans for any additional wells, such as nested wells, to evaluate both deep and shallow groundwater contamination.
6. Underground coal mining east of the site has the potential to cause land subsidence and groundwater redirection/diversion. Have you identified the presence of any actual mines beneath the site, and if present, what potential impact do they have on groundwater?
7. Does your characterization of groundwater flow confirm that Calley's Run is the local discharge area for onsite groundwater flowing through the contaminated area west of Calley's Run? What is the impact to offsite dose receptors from the groundwater pathway if contaminated groundwater flows under Calley's Run to an offsite receptor east of Calley's Run?
12. Has the area of contamination found between the solid waste pad and Calley's Run been included in the site dose assessment and computation of the DCGLs for the site?

Questions 8 through 11 asked in the December 1, 2001 PADEP letter appear to be beyond the regulatory basis of our need for information for evaluation of your remediation activities; however, we expect that information on waste volume and a summary discussion on remediation actions would be included in your final survey report. Question 13 relates to radiological contamination outside the exterior remediation project area in Calley's Run. We do not have any questions relating to sediment samples in Calley's Run in regard to your

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remediation project, but will review this as a separate issue outside the scope of the remediation project. NRC has received a copy of this document.

If you have any technical questions regarding this request for additional information, please call Mark Roberts at (610) 337-5094.

Sincerely,

Original signed by Ronald R. Bellamy

Ronald R. Bellamy, Chief
Decommissioning and Laboratory Branch
Division of Nuclear Materials Safety

Enclosure: December 1, 2000 letter from D. Allard, PADEP to G. Pangburn, DNMS, Region
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cc:
Wayne D. Vogel, Radiation Safety Officer
Robert Maiers, Chief, Decommissioning Section
Roy Woods, Radiation Health Physicist

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