

JUN 18 1992

License No. SMB-1527  
Mail Control No. 115462

Docket No. 040-08976

Westinghouse Electric Company  
ATTN: C. Wayne Bickerstaff  
Manager, Industrial Hygiene and  
Materials Transportation, Environmental Affairs  
Westinghouse Building  
Gateway Center  
Pittsburgh, Pennsylvania 15222

Dear Mr. Bickerstaff:

Subject: ADDITIONAL INFORMATION REGARDING BLOOMFIELD, NEW  
JERSEY FACILITY

This in reference to your application dated September 3, 1991 requesting release for unrestricted use of Buildings 1 through 6 and the garage at your Bloomfield, New Jersey facility. In order to continue our review, we need the following information:

1. In your September 23, 1991 response to our letter of April 29, 1991, you provided two tables of results of analyses of ground water samples. Please provide a map or diagram of the locations of the monitoring wells from which these samples were obtained, the dates the samples were obtained and the depth where each of the samples was obtained.
2. In your September 23, 1991 letter reporting ground water analyses results, the first of the two tables indicates a gross alpha concentration of  $37 \pm 11$  pCi/l and a gross beta concentration of  $92 \pm 14$  pCi/l for the sample obtained from location CC-3. Please explain the implication of these results as they relate to the potential for ground water contamination.
3. Your September 23, 1991 letter discusses a new ground water sampling program to meet the State of New Jersey requirements. Please describe the sampling locations, the type and frequency of analyses and the date that this program will be initiated.
4. In your September 23, 1991 letter you indicate that Westinghouse Electric Company believes there is little risk of radiological contamination of ground water at this time. Please estimate the quantity of radioactive material remaining on the site and provide a brief analysis indicating why this material causes minimal risk to ground water.

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5. Describe briefly what current knowledge and understanding you have for the hydrology of the area.
6. Your September 23, 1991 response to the questions on ground water in our April 17, 1991 letter did not completely answer our concerns regarding the potential for contamination of ground water with radioactive materials during site operations. Prior to remediation of contaminated areas, to what extent and for how long was radioactive material in a form and location or otherwise available to contaminate ground water?
7. In your September 23, 1991 letter you state that radiation readings above ambient background were confirmed for the Building 3, 4 and 5 Loading Dock, but that none of the measured values exceeded the uranium release criteria. Therefore, no additional remediation was performed in this area. However, in a December 27, 1990 letter from Canberra to ORAU, both thorium and uranium were the reported contaminants for this area. The total contamination limits for thorium and uranium are 1,000 and 5,000 dpm/100 cm<sup>2</sup>, respectively. For areas where more than one contaminant exists, each with a different contamination limit, you must apply the most conservative limit. Alternatively, you may determine (measure) the actual contamination value for each contaminant, divide the measured value by the appropriate limit and add the fractions. To satisfy the release criteria under this latter method, the resultant sum of the fractions must be less than or equal to unity. The contamination limit for uranium may only be utilized in this case if uranium is the only contaminant present. Please review the data for this area, apply the appropriate contamination limit and report the results of your review. You may need to perform additional remediation in this area if the applicable limits are not met.
8. In our letter of April 29, 1991 we expressed our concern that the survey performed by ORAU identified contaminated areas not previously identified. In response to our concerns, you stated that your contractors have performed additional surveys. Please estimate the fraction of the facility that has been surveyed.
9. From your survey performed in 1990 and the survey performed by ORAU, it appears that there may be some residual licensed materials remaining in the piping leading to the sump between Building 3 and Building 4. Please provide an estimate of the licensed material remaining and the impact of this remaining material.
10. Describe the instrumentation and survey methodology utilized by your contractor(s) for surveys of both remediated and non-remediated areas conducted after the March 1991 ORAU survey.

11. Confirm that the survey methodology and instrumentation used by your contractor(s) in their 1990 and 1991 surveys were comparable to the methodology and instrumentation used by ORAU.
12. Describe briefly the extent of the remediation performed in the reservoir area. To what depth was soil removed. Confirm that the samples taken to a depth of 15 centimeters in the remediated areas included those locations where actual excavation was performed.
13. In your response to item 5 of our letter dated April 17, 1991 you indicate that there is no reason to believe there may be offsite tailings present and that initial surveys that you conducted confirm no radioactivity. Please briefly describe the scope of these offsite measurements (i.e. how far outside the fence line measurements were made) and the instrumentation used for these surveys.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I office and refer to Mail Control No. 115462. The reviewer for this licensing action is Mark Roberts. If you have any technical questions regarding this letter please call the reviewer at (215) 337-5094 or me at (215) 337-5252.

Thank you for your cooperation in this matter.

Sincerely,

**Original Signed By:**  
**John D. Kinneman**  
**John D. Kinneman, Chief**  
**Site Decommissioning Management**  
**Plan Task Force**  
**Division of Radiation Safety**  
**and Safeguards**

cc:  
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