



**Westinghouse  
Electric Corporation**

Westinghouse Building  
Gateway Center  
Pittsburgh Pennsylvania 15222

**May 24, 1994**

**Mr. Mark Roberts  
Senior Health Physicist  
U.S. Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406**

**Dear Mr. Roberts:**

Westinghouse is preparing to demolish the upper structure of Buildings 9 and 10A at Bloomfield. The demolition is necessary because of the impact the winter weather has had on the temporary roof structure and the trenches in the floor. The structure has become more unstable and Westinghouse believes it must be demolished down to ground level before any remediation work can be done on the floor surfaces and in the trenches.

The purpose of this letter is to confirm our discussion on May 9th regarding the survey protocol for the free release of the upper structure. During the demolition work which has been done to date, Westinghouse has performed a 100% survey of all the building materials being removed. Those surveys have screened approximately 33,000 cubic feet of scrap material. Approximately 700 cubic feet, or 2%, of the scrap material exceeded the established release criteria. The contamination we are finding is low level, fixed contamination. We have found contamination on the lower block wall surfaces (less than 2 meters), the scrap pipe and supports in the building overheads and the overhead I-beams. The concrete roof panels have been virtually free of contamination except for some spotty low-level contamination on the ends of 5 of the 620 concrete roof panels which have been removed.

As we discussed on the phone, Westinghouse is proposing an alternative protocol for surveying and the free release of the remaining upper structures of Building 9 and 10A. We are proposing to follow the guidance of NUREG/CR-5849 in the performance of the survey. The specific survey protocol is as follows:

- 1) Walls (up to 2 meters)

- a) Beta scan of 100% of the wall surface.
  - b) One beta measurement at the intersection of each 1 meter grids (4 measurements per grid).
  - c) One alpha measurement at the center of each 1 meter grid.
- 2) Walls (above 2 meters) and Ceiling
- a) One beta measurement for every 20 m<sup>2</sup> of wall and ceiling surface. Minimum of 30 measurements.
  - b) One alpha measurement for every 20 m<sup>2</sup> of wall and ceiling surface. Minimum of 30 measurements.
- 3) Horizontal Surfaces (overhead piping, I-beams, supports)
- a) Beta scan of 100% of the surface area.
  - b) One beta measurement for every 20 m<sup>2</sup> of surface area. Minimum of 30 measurements.
  - c) One alpha measurement for every 20 m<sup>2</sup> of surface area. Minimum of 30 measurements.
- 4) Concrete Ceiling Panels
- a) Beta scan of the ends of each ceiling panel after demolition.
  - b) Alpha scan of the ends of each ceiling panel after demolition.

The general sequence of activities Westinghouse is planning for the demolition work is as follows.

- 1) Perform a survey of the walls, ceiling and horizontal surfaces in Building 9 and 10A. Any areas found to be contaminated will be remediated or marked as contaminated for segregation after the buildings have been demolished.
- 2) Prepare the trenches and floor. Trenches will be lined with plastic and open areas of the floor will be covered with plywood or steel decking.
- 3) Demolish the buildings.

Initially, all concrete and cement block walls will be removed from Building 9 and Building 10A. The walls will be pushed down away from the trenches to prevent any concrete rubble from entering the trenches. The walls will be removed down to the existing grade.

The steel support columns in Building 10A will be precut. With steel cables attached to the precut support columns, the columns will be pulled to the east (toward the demolished Building 10). This will cause the roof to collapse down into Building 10A.

The Building 9 steel support columns will be precut starting from the east wall and continuing past the high bay roof area to the first row of columns of the low bay roof that parallels Arlington Avenue. This section of the building will then be pulled down toward Building 10A.

Precut the remaining steel support columns from the low bay roof section that parallels Arlington Avenue. This section of the building will then be pulled down toward Building 10A. At this point, to avoid any portion of Building 9 falling toward Arlington Avenue, the contractor will work small sections of the remaining building.

This will be done by pulling the columns away from Arlington Avenue, thereby causing the roof to fall into the building and away from Arlington Avenue. No debris will be allowed to fall toward Arlington Avenue.


- 4) Remove the debris. Any material identified as contaminated during the predemolition surveys will be segregated at this point. The ends of the concrete roof panels will be surveyed prior to loading for disposal. Clean debris will be processed through a recycler or disposed of at a landfill. Contaminated material will be packaged as radioactive waste and stored onsite.
- 5) Following demolition, a temporary water tight cover will be installed over the foundation of Building 9. All large voids and pits will be bridged across with wooden joists and covered with plywood sheeting. The temporary wooden roof will be used for this purpose. Two layers of mil plastic sheeting will then be used to cover the entire floor surface area.

The entire area will then be covered with a seamless vinyl, 6.3 ounce per square foot membrane. The cover will extend 10 feet beyond the perimeter of Building 9. The cover will be weighted with sandbags as ballast to prevent water from collecting in low areas. Drains will be installed as necessary.

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If you have any questions or concerns, please contact me at (412) 642-3880.

Sincerely,

  
C. W. Bickerstaff, Manager  
Industrial Hygiene  
Environmental Affairs

cc: OAK RIDGE, TN -- SEG, David M. Hall