

June 22, 1999

FOR: The Commissioners  
FROM: William D. Travers /s/  
Executive Director for Operations  
SUBJECT: STATUS OF DECOMMISSIONING PILOT PROGRAM FOR MATERIALS LICENSEES

## PURPOSE:

To inform the Commission of the status of the pilot program to streamline the decommissioning process for materials licensees.

## BACKGROUND:

In the Staff Requirements Memorandum dated June 30, 1998, the Commission approved implementation of a decommissioning pilot program as proposed by the staff. This paper provides the current status of that pilot program.

## DISCUSSION:

## 1. DESCRIPTION OF THE PROGRAM

The primary objective of the decommissioning pilot program is the evaluation of a performance-oriented decommissioning approach, by which licensees safely decontaminate their sites on their own, without waiting for intermediate approvals from the Nuclear Regulatory Commission. The pilot program uses a performance-oriented approach that provides residual contamination goals, and allows the licensees to decommission without obtaining approval of a decommissioning plan.

The staff implemented the pilot program by: (1) initially identifying five volunteer participants; (2) confirming that two licensees will decommission using Site Decommissioning Management Plan (SDMP) Action Plan Criteria, and one will use the unrestricted release criterion of 25 millirem per year; (3) obtaining a decommissioning schedule; (4) issuing three exemptions from the requirement to submit decommissioning plans; (5) notifying the licensees to proceed with decommissioning; and (6) preparing this report to the Commission on the status of the pilot program.

## 2. STATUS OF THE SITES

Following is a summary of each site considered for the pilot program.

- A. The Westinghouse Pump Repair Facility, Cheswick, Pennsylvania, involves a building contaminated with mixed fission and corrosion products. The licensee will decontaminate the building using the SDMP Action Plan Criteria, release it for unrestricted use, and then demolish it. Westinghouse began decontamination activities in July 1998 and plans to complete remediation by September 1999.
- B. Westinghouse-Forest Hills, Pennsylvania, entails a laboratory building contaminated with cesium-137, radium-226, natural uranium, and thorium. Westinghouse previously submitted a decommissioning plan, and proposed to decontaminate the site using the SDMP Action Plan Criteria, and release the site for unrestricted use. The licensee is currently conducting additional characterization to ensure it identifies all radioactive materials. They plan remediation for the fourth quarter of 1999. Proper disposal of several sealed sources found during final characterization may delay completion of this project.
- C. The Phillips Research Center, Bartlesville, Oklahoma, includes a building contaminated with tritium, which the licensee plans to decontaminate, release for unrestricted use, and then demolish. The licensee proposed volumetric cleanup levels for the tritium contamination, which the staff evaluated and approved after determining that they would meet the 25 millirem per year limit in the 1997 License Termination Rule. After Phillips issues a remediation contract, it expects cleanup activities to last six to twelve months.
- D. The Nuclear Fuel Services (NFS) Erwin, Tennessee site contains a building contaminated with plutonium. There are other contaminated buildings on the site, but the licensee proposed decontaminating and demolishing this single building. The licensee subsequently determined that they would not release any materials from the demolition for unrestricted use. After further consultation, NFS withdrew from the pilot program because it did not feel that its plans fit the objectives of the pilot program.
- E. The Oklahoma State University (OSU) case involves a waste burial site that the university proposed to release for unrestricted use without further remediation. There are 30 contaminants including uranium, carbon-14, and tritium. Based on dose calculations by OSU and the staff, the site may not meet current dose criteria for release for unrestricted release. Also, monitoring results by Oklahoma Department of Environmental Quality include elevated concentrations of uranium and other materials in monitoring wells. This shows that there is potential contamination of the groundwater and migration of both hazardous chemical and radiological contamination from the disposal site. Therefore, staff concluded that this site is too complex to be within the scope of the pilot program. The staff notified OSU by letter dated May 13, 1999 that a decommissioning plan is necessary to decommission the site.

## CONCLUSION:

The staff believes that the three licensees remaining in the pilot program can remediate their facilities without the formality of prior approval of site characterization, decommissioning plans, and survey plans. None of the facilities have completed decommissioning at this time, so it is too early to evaluate adequacy of remediation. This will be a key factor in evaluating the success of the pilot program. The potential dose for the Phillips site following remediation is less than 25 millirem per year. It is too early to provide dose data on the two Westinghouse sites. The staff will inform the Commission of the status of each site as remediation is completed.

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