

June 11, 1998

FOR: The Commissioners

FROM: L. Joseph Callan /s/
Executive Director for Operations

SUBJECT: DECOMMISSIONING PILOT PROGRAM FOR MATERIALS LICENSEES

PURPOSE:

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

BACKGROUND:

In the Staff Requirements Memorandum (SRM) dated March 31, 1997, the Commission directed the staff to implement a decommissioning pilot program in accordance with the Strategic Assessment, Direction-Setting Issue # 9, "Decommissioning of Non-Reactor Facilities." The pilot program would use a performance-oriented approach that would simply provide the residual contamination goals, and allow the licensees to proceed with decommissioning without obtaining approval of a decommissioning plan. Volunteer participants would be technically capable and adequately funded, and the sites would be non-complex, minimally contaminated, and would undergo only routine decommissioning activities. The Commission also directed the staff to conduct a workshop in connection with the pilot program. This paper provides the status of the pilot program.

CONTACT: Richard H. Turtill, NMSS/DWM
301-415-6721

DISCUSSION:**1. Workshop**

The Decommissioning Workshop was held at U.S. Nuclear Regulatory Commission (NRC) Headquarters on March 19, 1998. Approximately 80 people attended, including representatives from: the Nuclear Energy Institute; Fuel Cycle Facilities Forum; Organization of Agreement States; NRC licensees; NRC staff; industry associations; the public; and the media. The workshop provided an opportunity for participants to present their views on the current decommissioning process, and also to suggest improvements.

The most significant comment received at the workshop was that NRC should allow licensees wider latitude to complete decommissioning activities, without waiting for intermediate approvals from NRC. Many of the workshop attendees stated that many decommissioning activities can be properly conducted under their existing licenses. This is consistent with the goals of the pilot program, and the general goals of the Agency, that performance-oriented, risk-informed decommissioning methods should be pursued. Some attendees also suggested that the pilot program include a complex site.

In addition, representatives from the National Mining Association (NMA) and the International Uranium Corporation of Denver proposed that NRC consider expanding the types of wastes that could be disposed of in mill tailings piles. Note that the NMA included this topic in a white paper presented to the Commission in April 1998.

Five licensees volunteered to participate in a pilot program. One licensee plans to decontaminate all of its licensed facilities, and terminate its license. The other four licensees plan to decommission portions of their facilities, but they do not plan to terminate their licenses in connection with the pilot program. In all five pilot cases, the decommissioned facilities would be released for unrestricted use; none of the five cases involve restricted release. The staff's plans to implement the pilot program for these five volunteers, including plans to exempt some of the participants from certain NRC requirements related to approval of decommissioning plans, are discussed below.

2. Exemptions Necessary to Implement the Pilot Program

In accordance with 10 CFR 30.36(g), 40.42(g), and 70.38(g), a licensee must submit a decommissioning plan if decommissioning procedures would involve techniques not applied routinely during normal operations. Therefore, even licensees planning non-complex decommissioning operations may be required to submit a decommissioning plan. Furthermore, 10 CFR Part 20.1401(b)(3) requires that licensees proposing to apply Site Decommissioning Management Plan (SDMP) Action Plan Criteria to their sites must submit a sufficient license termination plan or decommissioning plan before August 20, 1998, and that the plan must be approved by August 20, 1999.

In its direction to implement the pilot program, the Commission envisioned that licensees would proceed with decommissioning without obtaining NRC approval of a decommissioning plan. In order to implement the pilot program, it will be necessary to exempt some volunteers in the pilot program, as appropriate, from the requirements of 10 CFR 30.36(g), 40.42(g), and 70.38(g) for submitting a decommissioning plan. The timing of the SRM directing the staff to conduct a pilot program was such that it preceded the issuance of the final rule on Radiological Criteria for License Termination which was published on July 21, 1997. Because of the provisions of the final rule, it is also necessary to exempt some participants in the pilot program from the requirements of 10 CFR Part 20.1401(b)(3) to submit a sufficient decommissioning plan by August 20, 1998, in order to use the SDMP Action Plan Criteria, because submittal of decommissioning plans under the pilot program is not required. Therefore, the staff plans to exempt the pilot participants, as appropriate, from the requirements to submit a decommissioning plan in accordance with 10 CFR 30.36(g), 40.42(g), 70.38(g), and 20.1401(b)(3).

Pilot program participants will be required to specify the radiological criteria (i.e., SDMP Action Plan Criteria or the unrestricted release criteria of Subpart E of the License Termination Rule) that they will apply to their decommissioning activities. The staff will also review conditions in participants' licenses to ensure that activities undertaken by licensees are in accordance with their current licenses.

3. Candidates for the Pilot Program

Five licensees have volunteered to participate in the pilot program: (1) Phillips Petroleum; (2) Westinghouse-Cheswick; (3) Westinghouse-Forest Hills; (4) Nuclear Fuel Services, Inc.; and (5) Oklahoma State University. All of these licensees appear to be technically and financially capable. Three of the cases will involve non-complex decontamination operations: Phillips; Westinghouse-Cheswick; and Nuclear Fuel Services. The Westinghouse-Forest Hills site involves both a contaminated building and contaminated outdoor areas, so the staff plans to include only the building in the pilot program, because remediation of the outdoor areas will be technically complex. The Oklahoma State University case involves a burial site which the university proposes to release for unrestricted use without further remediation.

The staff will review whether pilot program participants can complete decommissioning under their operating licenses. If licenses are inadequate to cover the decommissioning activities, the staff will issue amendments to ensure that decommissioning activities can be performed under the licenses. Some or all of the cases will probably require exemptions from the requirement to obtain NRC approval of a decommissioning plan, and two or three of the cases (both Westinghouse sites, and possibly Nuclear Fuel Services) will probably require exemptions from 10 CFR 20.1401(b)(3), in order to allow application of the SDMP Action Plan Criteria. All five cases are summarized below:

- (1) Phillips Petroleum Company, Bartlesville, OK. This case involves a building contaminated with tritium, which the licensee plans to decontaminate, release for unrestricted use, and then demolish. The licensee has submitted a decommissioning plan which includes proposed cleanup levels for the tritium contamination. These proposed levels will be evaluated by the staff for compliance with the new License Termination Rule. Cleanup activities are expected to last 6 months.
- (2) Westinghouse Pump Repair Facility, Cheswick, PA. This case involves a building contaminated with mixed fission and corrosion products. The licensee plans to decontaminate the building in accordance with the SDMP Action Plan Criteria, release it for unrestricted use, and then demolish it. After initial preparatory work is complete, cleanup activities are expected to last at least 1 year.
- (3) Westinghouse Forest Hills Facility, Forest Hills, PA. This case involves a building and an outdoor pit area, contaminated with cesium-137, radium-226, natural uranium, and thorium. The licensee has submitted a decommissioning plan, and proposes to decontaminate the site in accordance with the SDMP Action Plan Criteria, and release the site for unrestricted use. The staff considers the outdoor area to be complex, and plans to include only the building in the pilot program. Cleanup activities are expected to last less than 1 year.
- (4) Nuclear Fuels Services Facility, Erwin, TN. This case involves a building contaminated with plutonium. There are other contaminated buildings on the site, but the licensee has proposed to decontaminate and demolish this single building for the pilot program. The building will be partially decontaminated prior to demolition. As the building is demolished, the building materials will be screened for remaining contamination, and contaminated portions will be disposed of as radioactive waste. The licensee believes that it can perform these activities under its existing license, without a decommissioning plan. The licensee has not yet stated whether it would use the SDMP Action Plan Criteria to determine which building materials could be released for unrestricted use. After initial preparatory work is complete, cleanup activities are expected to last up to 2 years.
- (5) Oklahoma State University, Stillwater, OK. This case involves buried waste. The contaminants include 30 short half-life radionuclides, carbon-14, and tritium. The licensee proposes using a dose assessment to close the case without further remediation. Staff will further evaluate this case to determine whether an exemption is needed.

4. Implementation of the Pilot Program

The primary objective of the decommissioning pilot program is the evaluation of a performance-oriented decommissioning approach, whereby licensees safely decontaminate their sites on their own, without waiting for intermediate approvals from NRC. The staff plans to implement the pilot program by: (1) confirming whether licensees will decommission using SDMP Action Plan Criteria or unrestricted release criteria of 10 CFR Part 20, subpart E; (2) obtaining a decommissioning schedule; (3) determining whether licensees can conduct necessary work under their current licenses, and issuing appropriate amendments if necessary; (4) issuing exemptions from the requirement to submit decommissioning plans, if necessary; (5) notifying the licensees to proceed with decommissioning; (6) upon notification by the licensee that decontamination is complete, verifying that each site has been adequately decontaminated; and (7) preparing a report to the Commission on the status of the pilot program in 1 year.

As a result of exemptions, as appropriate, from the need for submittal and approval of a decommissioning plan for licensees participating in the pilot program, notice of consideration of approval of a decommissioning plan and opportunity for hearing on the decommissioning plan would not be published in the Federal Register. Also, consistent with the general practice for materials licensees, any exemptions that are issued would not be published in the Federal Register. However, license amendments may be necessary for some of the licensees in the pilot program in order for them to proceed with decommissioning activities, and licenses may be amended or terminated following completion of decommissioning. Such licensing actions would be subject to hearing rights under 10 CFR Part 2, Subpart L, "Informal Hearing Procedures for Adjudications in Materials and Operator Licensing Proceedings."

RESOURCES:

Resources to implement the pilot program are currently included in the budget.

COORDINATION:

The Office of the General Counsel has no legal objection to this Commission Paper. The Office of the Chief Financial Officer has reviewed this Commission Paper for resource implications and has no objections.

CONCLUSION:

The staff will proceed to implement the pilot program for the five sites as described, granting exemptions from the requirement for approved decommissioning plans, as appropriate. The staff will report on the status of lessons learned from the pilot program by June 30, 1999.

L. Joseph Callan
Executive Director for Operations