

March 28, 2007

MEMORANDUM TO: Andrew Persinko, Branch Chief  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

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SUBJECT: COMPARISON OF SAFETY PERFORMANCE OF NRC'S  
DECOMMISSIONING AND LOW LEVEL WASTE PROGRAM TO THE  
PROGRAMS CONDUCTED BY THE AGREEMENT STATES

To support the FY 2006 OMB PART review of the Decommissioning and Low Level Waste Program (DECLLW), the staff conducted a study to compare the safety performance of NRC's program for regulating decommissioning sites to similar regulatory programs conducted by the 12 separate programs of the Agreement States. A description and results of this study is enclosed.

Enclosure:  
Comparison of NRC and Agreement State Programs for  
Regulating Decommissioning Sites

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**COMPARISON OF NRC AND AGREEMENT STATE PROGRAMS FOR  
REGULATING DECOMMISSIONING SITES**

Purpose and Scope:

Compare the performance of NRC's program for regulating decommissioning sites to the similar regulatory programs conducted by the Agreement States.

The scope of this comparison only includes decommissioning of complex materials and uranium recovery sites. Agreement States do not have regulatory responsibility for nuclear power reactor decommissioning. Furthermore, this study does not include the three operating and one closed low-level waste disposal facilities regulated by the States because NRC's low-level waste program does not have regulatory responsibility for any specific low-level waste disposal facilities.

The scope of this comparison focuses on the program's performance in achieving the safety goal of ensuring protection of public health and safety and environment. The strategic, long-term outcomes related to this goal are:

No acute radiation exposures resulting in fatalities

No releases causing exposures

No releases causing adverse environmental impacts

The related performance measures, or annual outcomes, and targets that are specific to decommissioning are:

Zero events with radiation exposures to the public and occupational workers from radioactive material that exceed Abnormal Occurrence Criteria I.A

Zero radiological releases to environment that exceed applicable regulatory limits

Background:

During the FY 2006 comparison time period, NRC had regulatory responsibility for 32 complex decommissioning materials facilities, three fuel cycle facilities (partial decommissioning), and 12 uranium recovery facilities that are undergoing non-routine decommissioning.

Thirty-four States have signed formal Agreements with NRC, under which NRC discontinues its regulatory authority, and by which those States have assumed regulatory responsibility over certain byproduct, source, and small quantities of special nuclear material, including decommissioning of complex materials sites within their jurisdiction. In addition, six of these Agreements include responsibility for uranium recovery sites including sites in decommissioning.

Enclosure

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Of the 34 Agreement States, 12 States have identified 48 complex decommissioning and decommissioning uranium recovery sites reported by the Agreement States (one Agreement State did not report). NRC's annual decommissioning status report for 2006 (NUREG-1814, Rev. 1) provides a list in Table 7-1 of the 48 complex decommissioning and decommissioning uranium recovery sites reported by the 12 Agreement States (Attachment 1).

The Agreement States are required by NRC to use regulations that are compatible with NRC's regulations for decommissioning and uranium recovery. In addition, Agreement States often use NRC's regulatory guidance. Agreement States are also required to report events to NRC pertaining to safety, which are included in the Nuclear Materials Events Database (NMED).

The NMED system collects information on events nationwide that are reportable under NRC's regulations, as well as other events that States may want to report, but does not track data against the performance measures listed above. A reportable event may involve an exposure or release. Therefore, some investigation will be needed if and when there is a reportable event to determine if the threshold of the performance measures has been exceeded.

### Comparison Approach:

Agreement State performance: The NMED data base was searched for event reports that occurred during FY 2006 for the 12 Agreement States that have identified complex decommissioning sites or decommissioning uranium recovery sites.

The 48 Agreement State sites listed on Table 7-1 of the 2006 annual report for the Decommissioning Program were checked against the list of reported events.

Reported events were reviewed to determine if they exceeded the threshold of either of the two performance measures listed above.

NRC performance: Results for each of the two performance measures documented in NRC's FY 2008 Performance Budget were used for NRC's performance. These results were obtained using NMED as described above for the Agreement States and in Appendix IV of the FY 2008 Performance Budget.

### Results:

No events were reported during FY 2006 for decommissioning complex sites or decommissioning uranium recovery sites that exceeded either of the two performance measures at sites regulated by NRC or the Agreement States. One uranium recovery site in Colorado changed status from standby to operational, and it reported an exposure, but this event did not occur during decommissioning activities.

The FY 2006 results demonstrate that the NRC and the 12 Agreement State programs for regulating the safety of complex decommissioning sites and decommissioning uranium recovery sites compare favorably for the performance measures evaluated.