

June 7, 2002

MEMORANDUM TO: Daniel M. Gillen, Chief  
Fuel Cycle Facilities Branch  
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Office of Nuclear Material Safety  
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THROUGH: Gary Janosko, Chief */RA/*  
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SUBJECT: INSPECTION PROGRAM EXAMINATION

At the request of Melvyn Leach, we have completed our review of the inspection manual chapters and inspection procedures for Uranium Recovery and found they were up to date, included guidance on inspecting performance based licensees, and incorporated flexibility for conducting and scheduling inspections based on risk information and licensee performance.

Our conclusions are similar to those reached by the Nuclear Material Safety and Safeguards (NMSS) Risk Group Case Study and NUREG/CR-6733 for in situ leach facilities (ISLs), completed since the last inspection manual chapter revisions. Our conclusions are that: 1) the principal areas of risk to workers are the chemical, chemical handling, and yellowcake drier operations at uranium recovery facilities; 2) the risk to members of the public from uranium recovery facilities is minimal; and 3) the radiation hazards have already been taken into consideration in the inspection manual chapters and inspection procedures, but the chemical hazards have only been broadly addressed.

Construction inspections are performed to ensure that the licensees are meeting the requirements of their licenses and reclamation plans, and that later license termination actions can be performed in an efficient manner. Many of these inspections are done at the licensee's request, so they are assured of meeting the criteria before personnel and equipment are demobilized.

Presently, Region IV conducts safety and health physics inspections and Headquarters conducts construction inspections. The inspection schedules vary. Facilities in reclamation are inspected every three years by Region IV. Operating facilities are inspected twice per year by Region IV for radiation safety, and every other year for ground-water and non-rad safety compliance by Region IV with assistance from Headquarters.

We have the following recommendations, based on our examination of the inspection manual chapters. Region IV has concurred with these recommendations.

1. Reduce the frequency of radiation safety inspections to annually at all operating facilities, unless performance indicates that inspections should be performed more frequently. If poor performance is indicated, the inspections should be scheduled appropriately as needed (i.e., semi-annually or quarterly) until performance improves to the required level. This flexibility is already incorporated in the manual chapters and will not require any additional revisions. Attached is the October 16, 1998, memorandum, to Carl Paperiello, NMSS Office Director, outlining previous changes in the Uranium Recovery inspection schedules.
2. Examine reduction or elimination of ground-water compliance inspections at ISLs. The licensing program has proposed streamlining measures, based on the technical reviews performed by the non-Agreement States under Underground Injection Control (UIC) permits (Section 6.1, NUREG-1569). In a similar fashion, NRC could rely on the inspections performed by the UIC permitting States, under EPA-delegated authority, as a substitute for the current NRC ground-water compliance inspections. NRC would only inspect the ISLs for ground-water compliance when licensees' actions would result in an irreversible change in operations, such as decommissioning a wellfield or a financial assurance reduction for completing ground-water restoration. NRC would need to examine the non-Agreement States' inspection programs to assure some level of similarity with NRC before this measure is taken.
3. Examine the possibility of reducing environmental monitoring requirements, which are reviewed during inspections at all uranium recovery facilities. The findings from the NMSS risk study and NUREG/CR-6733 indicate that risk to the public is minimal. Some soil, surface water, and vegetation sampling might be reduced without compromising public safety.
4. Examine the need to increase inspection of chemical hazard risks to workers at operating uranium recovery facilities. The findings from the NMSS risk study and NUREG/CR-6733 indicate that risk to the workers from chemical hazards is significant and carries a potential consequence of losing control over licensed materials.
5. Perform any special inspections as necessary for allegations or indications of wrong doing.

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