

November 24, 2000

MEMORANDUM TO: Philip Ting, Chief  
Fuel Cycle Licensing Branch  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety  
And Safeguards

FROM: Michael Layton, Hydrogeologist  
Fuel Cycle Licensing Branch  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety  
And Safeguards

SUBJECT: MEETING SUMMARY, EPA AND NRC MEETING OF OCTOBER 10,  
2000

Attached is the summary of the October 10, 2000 meeting between the Environmental Protection Agency (EPA) and the Nuclear Regulatory Commission regarding NRC's reliance on the EPA's Underground Injection Control (UIC) Program for the protection of ground-water at NRC-licensed *In Situ* Leach Uranium Extraction Facilities. This meeting summary was reviewed by the participants. The meeting was conducted to partially fulfill the requirements of the Commission's Staff Requirements Memorandum SECY-99-013, issued on July 26, 2000.

Attachment 1: Meeting Summary  
Attachment 2: Meeting Agenda  
Attachment 3: Attendance List

CONTACT: Michael Layton, NMSS/FCSS  
(301) 415-6676

cc: Joan Harrigan Farrelly, Office of Ground Water  
and Drinking Water, EPA  
Mario Salazar, Office of Ground Water  
and Drinking Water, EPA

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## Meeting Summary

**Topic:** EPA and NRC Discussions: NRC's Reliance on UIC Ground-Water Protection Program at *In Situ* Leach Uranium Extraction Facilities

**Date/Time:** October 10, 2000; 1:00 pm to 2:00 pm

**Location:** 12<sup>th</sup> Floor Conference Room, EPA Offices, East Tower, Waterside Mall

**Meeting Agenda:** (see Attachment 1)

**Attendees:** (see sign up sheet, Attachment 2)

Joan Harrigan Farrelly - EPA	Philip Ting - NRC
Dan Gillen - NRC	Bruce Kobelski - EPA
Jim Curtin - EPA	Don Olson - EPA
Roy Simon - EPA	Maria Schwartz - NRC
Mario Salazar - EPA	Michael Layton - NRC
Bill von Till - NRC	

### Telephone

**Participants:** Laura Bose - EPA Region 9                    Jim Walker - EPA Region 9  
Theodore Fritz - EPA Region 7                    Ray Leissner - EPA Region 6

**Discussions:** The NRC requested this meeting with EPA's management and technical staff to present NRC's regulatory and licensing program at *In Situ* Leach Uranium Extraction (ISL) facilities, and possible ways the NRC could rely on EPA's Underground Injection Control (UIC) Program for the active regulatory oversight of ground-water protection at ISL facilities. The NRC representatives began the discussions with a brief background of the ISL Commission Paper (SECY-99-013) and the Commission's decisions on that paper (SRM-99-013), including a directive that the staff continue discussions with EPA and the appropriate States to determine to what extent the NRC can rely on EPA's UIC program for ground-water protection at ISL facilities.

The NRC representatives described the NRC's statutory authority, as granted by the Atomic Energy Act of 1954, as amended (AEA), which gives the NRC jurisdiction over all aspects of operations at ISL facilities. Additionally, the NRC also understood that the EPA, and the EPA-authorized States, also have jurisdiction over the ground-water protection aspects of ISL operations, in what regards to threats by underground injection, under the UIC Program authorized by Part C of the Safe Drinking Water Act. The overlapping authorities granted by these two federal laws potentially creates duplicative regulatory programs.

The EPA emphasized that all States have either adopted the federal UIC program in its entirety, or use the federal program, as a minimum, and impose additional requirements that are more stringent than the federal program. An example of more stringent requirements is the criterion for ground-water restoration within the exempted aquifer area that some states or Indian Lands may have. EPA approves the aquifer exemption that takes the affected portion of the aquifer off the definition of underground source of drinking water. Individual States can impose ground-water restoration limits within the exempted area. EPA would not require wellfield

restoration, because that area has been exempted as an underground source of drinking water, but EPA would require corrective action (cleanup) measure only if there was an indication that the exempted area might impact the water quality in the aquifer adjacent to the exempted area.

EPA representatives indicated that the federal UIC program does not have the broad authority, and is not as comprehensive at ISLs as the NRC's program. The federal UIC program relies on some aspects of the NRC's regulatory program, primarily the environmental impact reviews, which make the two federal programs complimentary in many regards rather than duplicative. The EPA does not have the resources to address the more comprehensive issues that NRC addresses in its environmental review process, or the authority to require fees for permit review and issuance. Duplicative aspects of regulation at these facilities may rests between NRC and the States with delegated EPA authority.

The NRC representatives described two currently-recognized potential impacts that resulted from the Commission's decisions in SECY-99-013. One impact involves the status of existing NPDES permits at ISL facilities that were granted by the States under the definition that wellfield restoration waters are mine waste water (40 CFR 440). The Commission has determined that all wastes from ISL facilities are classified as AEA 11e.(2) byproduct material. This difference in the definition of the same material may cause some concern with the States, and they may revisit their decisions on the existing NPDES permits at these facilities. The NRC representatives indicated that this topic would need to be explored in more detail with the affected States and potentially the EPA Office that oversees NPDES permits. The second impact involved the requirement of ground-water restoration in the wellfields. NRC licenses require wellfield restoration to the pre-extraction water quality, or to the pre-extraction water use classification determined by the State. It became apparent that at least one State relies on EPA as the regulatory authority responsible for protecting future ground-water users in the exempted aquifer area after restoration. The EPA representatives clarified this by stating that once the aquifer exemption is granted, EPA extends no protection to the exempted portion of the aquifer. EPA's focus is ground-water protection in the aquifer adjacent to the exempted area. The NRC and EPA representatives indicated that this issue would need to be examined in more detail, potentially with the affected States.

At the conclusion of the meeting, the EPA management thanked the NRC representatives for providing information on NRC's regulatory program at ISL facilities and their perspectives of potential issues with relying totally or partially on the UIC programs. EPA representatives emphasized that EPA headquarters and regional offices largely provide programmatic support and guidance to the States, and that the active regulation for much of the UIC programs lies with the States. The EPA Regions are the main active regulators for EPA directly implemented programs. The NRC representatives asked if it would be appropriate, at this time, to plan future meetings and include other EPA offices, regions, and affected States. EPA management indicated that the EPA participants would like to have some time to digest the information from this meeting and meet internally before deciding any additional steps. This would occur over the next couple of weeks and EPA would get in touch with the NRC representatives. In the mean time, any discussions among the respective staffs to discuss technical issues should continue, if needed.

No binding agreements or programmatic decisions were made by either the NRC or the EPA during this meeting.

## **Agenda**

Discussion Topics Between EPA and NRC  
October 10, 2000 1 pm to 2 pm  
11<sup>th</sup> Floor Conference Room  
East Tower, Waterside Mall

### **Reliance on UIC Ground-Water Protection Program at Uranium *In Situ* Leach Extraction Facilities**

#### **Introductions**

#### **Background**

- The Commission's recent policy decision in SRM 99-013 for staff to continue discussions with EPA to determine the extent NRC can rely on EPA's UIC program for ground-water protection at ISL facilities.
- NRC's current regulatory process for licensing reviews at ISL facilities and incorporation of UIC permit standards in NRC's licenses.
- Past coordination with non-Agreement States and EPA on ISL technical issues.

#### **Current Topics**

- NRC's authority under the Atomic Energy Act and EPA's authority under the Safe Drinking Water Act.
- Potential impact of NRC's decision to classify all ISL wastes as 11e.(2) byproduct material (solid material disposal, liquid effluent disposal).
- Ground-water restoration of wellfields, aquifer exemption, and potential impacts on future water use.

#### **Next Steps**

- Additional focused meeting between NRC and EPA technical staff
- Meeting with affected EPA regions and non-Agreement States

## MEETING ATTENDANCE

EPA / NRC meeting - 10/10/2002

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