




UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 29, 2000

MEMORANDUM TO: Stuart Treby, Assistant General Counsel  
Division of Rulemaking and Fuel Cycle  
Office of General Council

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

SUBJECT: USE OF INSTITUTIONAL CONTROLS ON PRIVATE PROPERTIES  
AT THE WESTERN NUCLEAR INCORPORATED (WNI) SPLIT  
ROCK, WYOMING URANIUM MILL SITE

On February 4, 2000, Thomas Essig, former Branch Chief for Uranium Recovery and Low-Level Waste Branch, sent an e-mail request to Maria Schwartz (copy attached). The request asked OGC for an opinion regarding the use of institutional controls on private properties as part of a Groundwater Corrective Action Plan submitted by WNI on October 29, 1999, for the Split Rock, Wyoming Uranium mill site. An abstract of this submittal and time line are attached. The Fuel Cycle Licensing Branch is requesting a status of this review.

Contact: William von Till, NMSS/FCSS/FCLB  
(301) 415-6251

Attachment 1: February 4, 1999 E-mail from T. Essig to M. Schwartz  
Attachment 2: Abstract of WNI's October 31, 1999 Groundwater Corrective Action Plan  
Attachment 3: Time line of review

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DISTRIBUTION: FCSS r/f FCLB r/f M Schwartz M Weber J Gray

OFC	FCLB		FCLB		FCLB	
NAME	WvonTill		DGillen		PTing	
DATE	11/20/00		11/20/00		11/29/00	

OFFICIAL RECORD COPY

**From:** Thomas Essig  
**To:** Maria Schwartz  
**Date:** Fri, Feb 4, 2000 2:56 PM  
**Subject:** Need for OGC Assistance

As discussed in our meeting this morning, JRLI respectfully requests OGC's opinion relative to the following:

**Do administrative or adjudicatory institutional controls over the use of ground-water private on property, such as those proposed by Western Nuclear, Inc., provide a legally defensible, enforceable and durable means of protecting human health and the environment in lieu of the specific requirements of 10 CFR 40, Appendix A?**

Based on our discussion this morning, an e-mail note appeared sufficient to request the subject assistance. If a more formal mechanism is required, please let me know. We would appreciate a response within two weeks, i.e., by February 18th. If that date is not feasible, let me know.

Tom Essig

**CC:** Daniel Gillen, John Greeves, Joseph Holonich, M...

**ABSTRACT ON THE WESTERN NUCLEAR INC. (WNI) GROUND WATER CORRECTIVE  
ACTION PLAN, APPLICATION FOR ALTERNATE CONCENTRATION LIMITS, AND  
PROPOSAL TO USE INSTITUTIONAL CONTROLS ON OFF-SITE PRIVATE PROPERTIES**

**November 7, 2000**

**BACKGROUND:**

- WNI is a Title II UMTRCA conventional mill and tailings site located in Jeffery City, WY. WNI is the oldest uranium mill site which has been in operation since 1958.
- A large groundwater contaminant plume is present from site activities which is flowing into the Sweetwater River (presently at non-detectable levels) and will impact multiple water supply wells within 100-200 years based upon modeling. Surface reclamation is nearly complete.

**WNI PROPOSAL (10-29-99):**

- Licensee proposes to perform no remediation with the use of Alternate Concentration Limits (ACLs), Institutional Controls (ICs) on off-site private properties, and a future alternate water supply for potential water well receptors. This alternative's proposed cost is \$114,000.
- Includes additional technical alternatives as required by the 1996 ACL Staff Technical Position.
  - 1) Hydraulic diversion with institutional controls - \$18,000,000
  - 2) SW valley focused pumping with institutional controls - \$108,000,000
  - 3) Perpetual containment pumping with institutional controls - \$117,000,000

**EMERGENT ISSUES:**

- The licensee proposed alternative relies on "institutional controls" over private property. This is not within specific regulatory framework of Title II UMTRCA and could be viewed as an "alternative to specific requirements". For three percent of the land within WNI's proposed boundary (preferred option), no agreement has been reached for institutional controls (Red Mule area-water wells). Acceptance review may show submittal deficient in this area. In review with OGC (see time-line).
- DOE has brought up major concerns with the use of these ICs on private property regarding long-term care. DOE does not know how they could enforce these controls or accept these conditions.
- Licensee's feasibility cost assessments to comply with current license limits are far in excess of the existing surety (\$18 M - \$117M versus \$11 M). Staff has determined that only the \$117 M alternative would comply with **current** standards in the license while the application is in review. The staff does not recommend this \$117M alternative and it is possible that cheaper alternatives exist that have not been adequately explored by licensee. The other approaches would require a change in standards. **Potential licensee forfeiture should be considered and the surety should be adjusted to cover the cost to return groundwater constituents to standards.**

## **WESTERN NUCLEAR GROUNDWATER CAP AND INSTITUTIONAL CONTROLS REVIEW TIME-LINE**

- October 29, 1999: WNI Submittal: Groundwater Corrective Action Plan and Application for Alternate Concentration Limits and the Use of Institutional Controls (ICs) on Off-site Private Properties
- December 15, 1999: NRC letter to WNI identifying major regulatory issues with the use of institutional controls on private properties. Letter states that in order to continue the review, the NRC requires additional information.
- January 17, 2000: WNI letter supplementing GCAP and addressing IC questions
- February 1, 2000: Legal Memo by Shaw Pittman (WNI Counsel) on ICs.
- February 3, 2000: WNI meeting with DWM/OGC (Maria Schwartz) to discuss institutional controls. NRC reiterates that in order to continue review, additional information is needed regarding ICs
- February 4, 2000: E-mail to OGC (Maria Schwartz) from Tom Essig, Branch Chief, requesting OGC opinion on the use of ICs on private property for Title II sites.
- February 25, 2000: WNI Submittal addressing some technical concerns held by NRC staff in February 3, 2000 meeting.
- May 2, 2000: WNI meeting with DWM/OGC (Stu Treby and Maria Schwartz) and DOE to discuss ICs. WNI asking for a status on NRC's review. DOE states that under WNI's present proposal they have major issues with the ICs.
- June 10, 2000: WNI meeting at site with DWM/OGC, DOE, and the Wyoming DEQ, to discuss the ICs at the site. DOE and OGC bring up major issues with the present proposal.