



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
ADVISORY COMMITTEE ON NUCLEAR WASTE  
WASHINGTON, DC 20555 - 0001

April 9, 2004

MEMORANDUM TO: ACNW Members

FROM: H. J. Larson, Special Assistant /RA/  
ACRS/ACNW

SUBJECT: SECY-04-0035, "RESULTS OF THE LICENSE TERMINATION RULE ANALYSIS OF THE USE OF INTENTIONAL MIXING OF CONTAMINATED SOIL", DATED MARCH 1, 2004

The attached SECY was distributed to each of you during March 2004. A presentation by the staff is now scheduled for the June 2004 ACNW meeting.

As noted in the SECY, in October 2002 the staff provided the Commission with an initial analysis that described the scope of each License Termination Rule (LTR) issue. However, at the time, the staff had not identified the intentional mixing of contaminated soil issue. On November 14, 2003, the Commission approved the eight issues included in the staff's analysis of the LTR and the planned evaluation of the intentional mixing issue.

In proceeding ahead with this analysis the staff identified five options of addressing the intentional mixing of soil to meet the LTR release criteria. The options evaluated were:

- Option 1) Do not allow intentional mixing for any purpose (Prohibit).
- Option 2) Maintain the current practice of allowing intentional mixing to meet waste acceptance criteria so that contaminated soil can be removed offsite, and for other limited waste disposal situations (e.g., dispose under 20.2002), on a case-by-case.
- Option 3) Allow intentional mixing to meet LTR release criteria in limited circumstances, in addition to the Option 2 current practice.
- Option 4) Allow intentional mixing to meet LTR release criteria with restrictions on use, in all cases, in addition to the Option 2 current practice.
- Option 5) Allow intentional mixing to meet LTR unrestricted and restricted release criteria, in all cases, in addition to the Option 2 current practice.

The staff recommends in this SECY Option 3 as follows:

"Allow intentional mixing to meet LTR release criteria in limited circumstances, on a case-by-case basis, in addition to the Option 2 current practice."

In addition the staff defines the limited circumstances under which it would consider intentional mixing to include:

“Any proposed mixing should be part of an overall approach to the site cleanup, which includes application of the as low as is reasonably achievable (ALARA) principle and considers only cases where it can be demonstrated that removal of the soil would not be reasonably achievable.”

The staff further specifies a footprint that should be equal to or smaller than the footprint before decommissioning begins and also, specifies that clean soil, outside the footprint of the contaminated area, should not be mixed with contaminated soil to lower concentrations. If the latter is the only viable option, then the Commission must be consulted before the staff gives such approval.

Additionally, the staff also recommends the development of adequate guidance documents and the need for a Regulatory Impact Statement.

**ACTION REQUIRED:** None, at this time. (It is interesting to point out, that for one of the very few times in the memory of the writer, this SECY states “**The staff plans to brief the Advisory Committee on Nuclear Waste on this topic during its June 2004 meeting**”.)

The other topic mentioned above and in the SECY, viz., the whole LTR analysis, may be a topic that Committee Members may also desire a presentation on in the future.

Attachments: As stated

cc w/atts: ACNW Staff  
J. T. Larkins  
R. P. Savio